

THE JOURNAL

OF THE

Michigan State Medical Society



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Volume 42

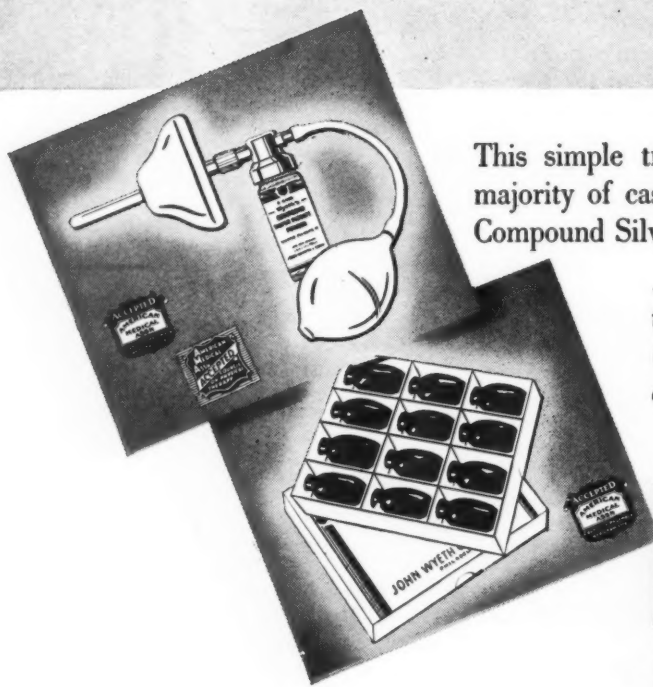
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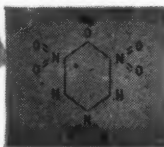
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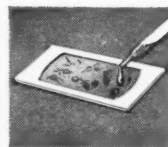
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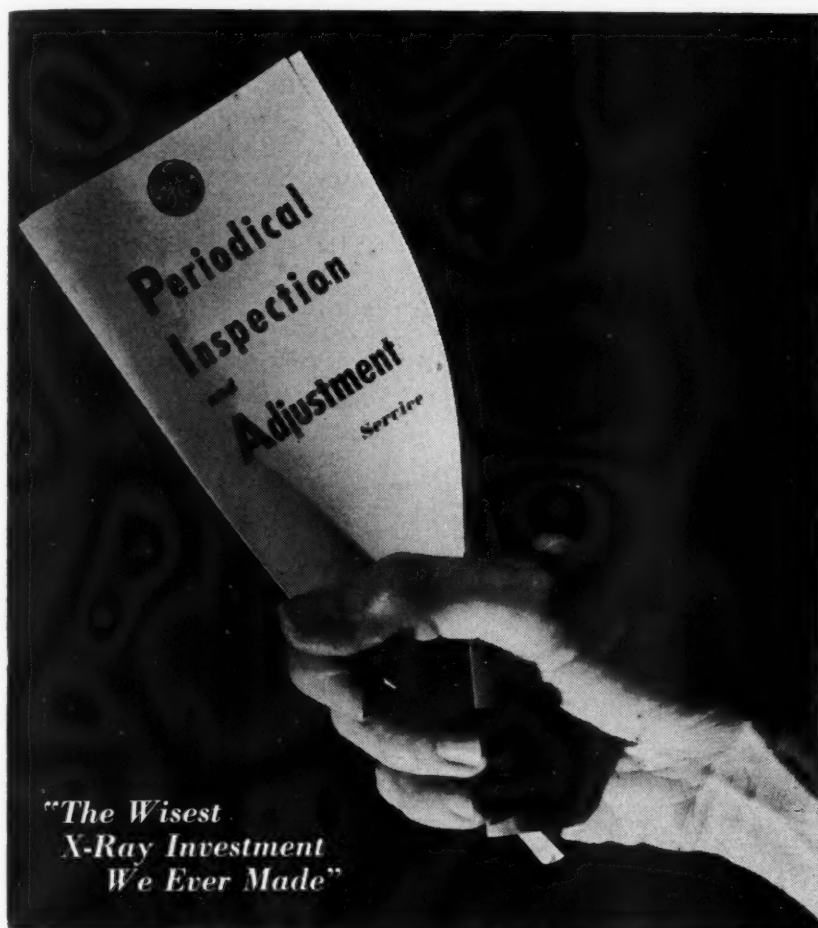


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WAR BULLETINS

OUR MAD WORLD*

By MALCOLM W. BINGAY
Editor, *Detroit Free Press*

'Twas the brooding Hamlet who said:
"The time is out of joint: O cursed spite,
That ever I was born to set it right!"

Our world today is filled with feeble Hamlets who do not feel gloomy. They proclaim vociferously the time is out of joint and bless the Lord that they are born to set it right.

You psychiatrists know the types. They can solve the problems of the universe on the back of an envelope any time they are called upon. They never let facts and stark reality interfere with their plans.

* * *

Just before the beginning of the Christian era, Seneca, the Stoic philosopher, wrote: "We are mad, not only individually but nationally. We check manslaughter and isolated murders; but what of war and the much vaunted crime of slaughtering whole peoples?"

Looking about us today, it is hard to believe that the world has improved much since that time. And yet with all the darkness that engulfs us we live in a great hope. There has been a slow but feverish dawning of human intelligence in the last four centuries.

To explain the universe in which we now live, to understand some of its triumphs and some of its madness, we have but to mention Man's explorations in those four hundred years.

First there were such men as Copernicus, Galileo and Newton to explore the heavens and to bring down to Man's use the celestial laws of mechanics which brought about the Machine Age.

Contemporaneous with them were such navigators as Columbus, Magellan and Vasco da Gama to discover vast continents and to chart a new geography.

Out of all this stirring of Man's imagination there came other great explorers in the science of government. They were lovers of liberty such as John Locke, Blackstone, Montesquieu, and Thomas Jefferson. They conceived the idea of life, liberty, and the pursuit of happiness for all people; that, under God, they consented to be governed.

There followed, too, in the field of medicine and chemistry, men like Lavoisier, Pasteur, Koch, Lister, and Ronald Ross to tell of an invisible world they had discovered through their microscopes.

And Man in his egotism viewed all these things and said they were good. Had he not brought light from the farthestmost star and at the same time captured and exposed the fiendish spirochete, which heretofore

had worked in the darkness of Man's limited vision to speed its madness from generation to generation?

* * *

Yes, man had conquered all things. He had conquered the earth and the seas and the air thereof. He had conquered time and space. By the power of the printed work he would conquer ignorance. At last, he said, he would find the answer to the riddle of the universe.

But it seemed that the more the great explorers discovered for him the unhappier became his lot.

Wars did not become less frequent. Instead, they increased in violence. We used all the gifts of God to make the slaughter a thousandfold more ruthless.

The terrific impact of all this Niagara of immediate knowledge and half-truth has brought upon us a form of intellectual indigestion. Science has poured upon the mind of Man, still emotionally immature, a cataclysm of conflicting thoughts, desires and purposes. Our hearts and minds and souls have not kept pace with the onrush of mechanical and materialistic triumphs.

We have not bred a generation sufficiently educated and disciplined to orient itself to an understanding of this new world.

* * *

You doctors of the mind are the latest galaxy of explorers. You doctors may well be the pioneers in the greatest adventure of all. You are just at the shores of the vast dark continent of the human mind.

You have had such men as Wundt, Broca, Helmholtz, Hughlings-Jackson and your own Adolph Meyer charting the course, with Freud and Adler and Jung contributing. The real science of psychiatry, developing out of psychology, is less than a century old. Already you are making discoveries that may change the course of history, as did your fellow explorers in other fields. Your task shall be to reorient Man back to a world sanity.

This, you cannot do alone. You will need, in cooperation with you, all the other branches of medicine. You will need the chemist and the physicist and the masters of all the other sciences that now seem to be blending into one universal essence.

You will need the tremendous power of a newly created educational system which will teach our coming generations something deeper than selfish desires, something wider than immediate gains; a system of schooling in our colleges and universities where men can hear the whisperings of the truth from the saints and sages of the ages and find poise and peace in a world of culture and understanding.

Above all, you will need the force, or, as you call it, the shock, of a moral renaissance that can come only from the inspired of God.

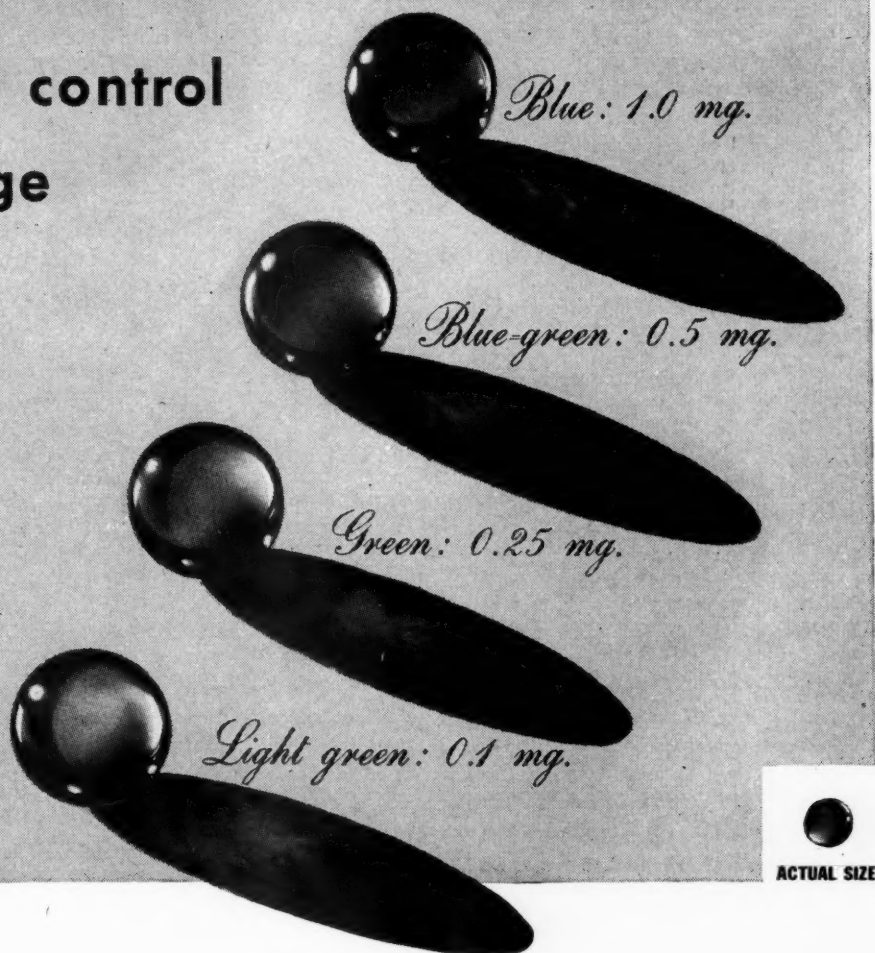
* * *

Yes, today, it seems a mad world upon which we
(Continued on page 506)

*Address at National Convention of American Psychiatrists Association at Detroit, May 12, 1943. Copied by permission.

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ANOTHER WAY TO SAVE LIVES . . . BUY WAR BONDS FOR VICTORY

JULY, 1943

Say you saw it in the Journal of the Michigan State Medical Society

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look. But, to a considerable extent, I think the madness is more apparent than real. In these four centuries of which I speak we have built a mighty world machine, a vast machine made up of steel and copper and electricity and chemical compounds; a machine with a nervous system which covers the whole face of the earth with immediate communication; a machine of finance and trade; and a machine of blood and bone and human hearts and heads and souls—all cogs in the one universal mechanism.

The scientists have done all this for us. But, just as we seem to get it running fairly well it cracks up. That means we go to war. The reason for this is that we have done everything but find men who know how to run it.

The manufacturer of a highly complicated airplane would not think of placing it in the hands of a man who knew nothing about aviation. But this global machine, the earth itself, we place in the hands of men not much better trained. We place our lives, and all that we hold near and dear, in the hands of politicians who know very little about history, sociology, economics, science or government.

It is not their fault. They are good men—most of them. They just have not had the training and they know not what they do.

There is not a doctor in this room who has not spent at least 20 years learning something about the science of medicine. The law requires that. We find much the same situation in law, in engineering, in teaching. Professional men and women have to submit to rigid examinations before they are allowed to accept the responsibility of their callings.

And not only professional men! Policemen, firemen, motormen, taxi drivers, barbers, beauty parlor operators, bartenders—what will you. Each must take an examination for intelligence and stability of character before being allowed to earn a living in his chosen field of endeavor.

But we ask nothing of the politician, the man in whose hands we place the destiny of the world.

* * *

Let us say he is a successful butcher, a gregarious extrovert who belongs to many fraternal orders and loves to kiss the babies. We make him mayor without ever asking him what he knows about the science of government, sociology, education, finance. All we say is, "Joe's a good fellow" and that's the end o' it. And by the same system we elect congressmen and senators and governors and even Presidents. We are getting so we almost determine a candidate's eligibility for office by giving him a radio audition.

We just "guess" that he will be all right because he appeals to our ears and our emotions. No, he has never had any executive training but he really doesn't need any. He is like the fellow who did not know whether he could play the violin because he had never tried.

But the time is coming when the American people will be educated out of this hit and miss selection of candidates based on hero worship.

Some day there will come a generation sufficiently

wise to pass a very simple law which will make it mandatory that before a man submits himself for public office he pass an intelligence test based on standard qualifications for the office he seeks. More, we will have a disinterested, and non-political, board of psychiatrists examine him to determine his stability of character and his capacity for leadership.

Progressive private business everywhere is making such demands upon its executives, why not in politics?

* * *

As the astrologers were to astronomy and the alchemists were to chemistry the politician is to government. Democracy is too new a thing for men to be trained scientifically in the art of it.

It is one of the problems you physicians of the mind must help solve in the development of an intelligent and alert electorate. Without a solution, it remains the greatest danger to free government in the world today.

As Man's enlightenment continues he will learn, last of all, to conquer himself. He will learn that selfishness and greed are but millstones around his neck; that his only joy will be service to his fellows, in the intelligent selfishness of sound coöperation through which alone will come peace with understanding.

To that mighty task you men of medicine are dedicated in the searching of his mind, the last unexplored continent. With you must stand the educators, the religious leaders, the lawyers and engineers, the social workers, the journalists and men and women of good will and high purpose in every walk of life.

Through this unity of effort alone can be brought about the salvation of Man where always the Mind is Master.

DOCTORS' GREAT SERVICE

Those who are disposed to complain because the army and navy are taking so many doctors away from civilian practice will probably reverse their thinking when they realize the great service the absentees are rendering the defenders of their country.

Reports from the front say that about 97 per cent of the wounded recover, and most of them eventually are able to return to active duty. All due to excellent medical and surgical care. In former wars death rates among the casualties have run as high as 70 per cent, with a great proportion of permanent disability among the survivors.

Our health at home may suffer a little, but we can well afford to make the sacrifice for the benefit of those who fall on the battlefield.—*Bay City Times*, May 23, 1943.

* * *

WAR DEBTS

The Federal Funded Debt rapidly moves upward. May 7 it was \$135 billion compared to \$61 billion November 30, 1941, only a few days before our declaration of war. Present schedule calls for this debt to top \$210 billion June 30, 1944.

The United Kingdom (British) Gross Debt on March 31 was \$36 billion. After approximately three and

(Continued on Page 508)

Gyn.

G.U.

Ob.

R.N.

M.D.

R.

D.O.A.

U.R.

e.n.t.

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WAR BULLETINS

one-half years of war this debt had advanced to *only* \$67 billion—an increase of \$31 billion: While our government debt, direct and guaranteed, advanced \$74.5 billion the first *eighteen months* we were in war. It is evident to any student of our fiscal policy and planned economy that England is doing a grander job at financing her war than we are.—Congressman Fred S. Crawford.

* * *

U. S. SAVING MOST WOUNDED OWI REPORTS

More than 97 per cent of the Navy men and Marines wounded at Pearl Harbor have survived, the Office of War Information reported today.

"The wounded don't die" was the theme of an exhaustive OWI report on the treatment of United States Army and Navy casualties. Its findings were summed up in these words:

"Never before in the history of the world has the fighting man had available the medical care and equipment the United States now furnishes its defenders."

Of all the Naval and Marine personnel listed as wounded at Pearl Harbor only 2.6 per cent died subsequently, OWI said, 53 per cent had returned to duty by March 31, 1943, while 43.5 per cent were still under treatment and 9/10 of 1 per cent were invalided from service.

Figures for Army wounded were not available, but OWI said obtainable data showed that "recoveries are comparable to Naval and Marine percentages."

"In the original occupation of North Africa, the only deaths were those of men killed outright or so badly wounded that nothing could have saved them," the report said. "This was true also in other theaters of war."—Associated Press release, Washington, D. C., May 29, 1943.

* * *

PERSONAL ITEMS

Captain Frank D. Richards, M.C., had the distinction of being listed twice in the recent Roster of Michigan Physicians in Military Service. Dr. Richards formerly practiced in DeWitt (Clinton County) but being much nearer to Lansing (Ingham County) he was granted permission to join the Ingham County Medical Society. Both Clinton and Ingham County Medical Societies claimed Captain Richards as their own!

* * *

Captain Herman Diskin, M.C. (formerly of Detroit), was awarded the Legion of Merit for exceptionally meritorious service in combat on Guadalcanal. The award was made on May 11 at the direction of President Roosevelt.

Captain Diskin was commanding officer of a company responsible for the evacuation of casualties of an infantry regiment. He made a personal reconnaissance through enemy-held territory to establish a route of evacuation which proved to be a prime factor in the swift evacuation of casualties to the rear during a subsequent advance of the regiment.

* * *

Captain Charles E. Osborne, M.C., USA (formerly of Vicksburg), is a prisoner of the Japanese govern-

ment, according to an official announcement made May 16. Previously, Captain Osborne had been reported missing in action at Bataan where he was stationed at the Base Hospital.

* * *

Lt. Col. Theodore P. Vander Zalm, M.C. (formerly of Lansing) writes: "From my place across the Pacific I have received most of M.S.M.S. JOURNALS, but some have gone many miles out of the way to get to me. Just got the February number, here in Australia, on April 26. Thanks for keeping up with me. I'll notify you of each move and change of station."

* * *

The Association of Military Surgeons will hold its 51st Convention in Philadelphia at the Bellevue-Stratford Hotel, October 21-23, 1943.

COUNTY MEDICAL SOCIETY MEETINGS

Bay—May 26, 1943—Wenonah Hotel—Speaker: Donald Durman, M.D.; Subject: "Foot Troubles."

Chippewa-Mackinac—May 24, 1943—Refresher Meeting—Speakers and Subjects: Richard H. Freyberg, M.D., "The Differential Diagnosis and Management of Nephritis." Howard H. Cummings, M.D., "Recent Advances in Obstetrics." Ernest H. Watson, M.D., "Recent Advances in Immunization Procedures." Panel Discussion on "The Diagnostic Significance of Pain," participants: Richard H. Freyberg, M.D., Ernest H. Watson, M.D., Howard H. Cummings, M.D., and Carl A. Moyer, M.D.

Dickinson-Iron—May 6, 1943—Iron River—The Scientific Program was in charge of A. Witkow, M.D., who presented Mr. W. W. Bougher, Inspector for the Bureau of Foods and Standards of the Michigan Department of Health. Following this presentation was a showing of the film "Twixt the Cup and the Lip."

Ionia-Montcalm—June 8, 1943—Lakeview—Speaker: G. J. Stuart, M.D., who spoke on "Psychiatry."

Jackson—May 18, 1943—Hotel Hayes—Speaker: H. Marvin Pollard, M.D., Subject: "Chronic Indigestion."

Kalamazoo—May 18, 1943—Public Library Bldg.—Speaker: Claire LeRoy Straith, M.D., whose subject was "Plastic Surgery Principles Applied to Civilian and Military Surgery."

Marquette-Alger—May 24-28, 1943—Extramural Course—Speakers and Subjects: Richard H. Freyberg, M.D., "The Differential Diagnosis and Management of Nephritis." Howard H. Cummings, M.D., "Recent Advances in Obstetrics." Ernest H. Watson, M.D., "Recent Advances in Immunization Procedures." Carl A. Moyer, M.D., spoke on "The Indications For and Use of Plasma Transfusions."

Oakland—June 2, 1943—Kingsley Inn—Speaker: Russell Alles, M.D., Subject: "Recent Advances in Obstetrics, Including Caudal Anesthesia."

Sanilac—May 13, 1943—Hotel McDonald—Purpose of meeting was to consider the plan for medical care of wives and infants of enlisted men in the armed forces.

Washtenaw—May 11, 1943—Regular Meeting. A resolution was adopted by the Society relative to the death of one of its members, Norman R. Kretzschmer, M.D. The Society expresses its sincere sympathy to his family.

* * *

COUNCIL AND COMMITTEE MEETINGS

May 19, 1943—Medical Preparedness Committee, Statler, Detroit

May 21, 1943—Sub-Committee of Child Welfare Committee, State Health Laboratory, Lansing

June 16, 1943—Executive Committee of The Council, Statler, Detroit

**2653 REASONS
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READING NOTICES

MORE HELP FOR MILK-ALLERGIC PATIENTS

Appetizing and nutritious recipes for using Mull-Soy in milk-free diets are now available in a new publication of Borden's Prescription Products Division. Already widely prescribed as a hypoallergenic substitute for milk in infant formulas, Mull-Soy is now proving equally useful in diets of older infants, children and adults who are allergic to milk.

These Mull-Soy recipe folders are designed for distribution by physicians to their patients. Any desired number of copies may be obtained by writing to Borden's Prescription Products Division, Department CB, 350 Madison Avenue, New York 17, N. Y.

RUMORS THAT PABLUM IS OFF THE MARKET ARE FALSE

Pabena, the new Pablum-like precooked oat cereal, does not replace Pablum. Pabena is now being marketed in addition to Pablum.

Pabena offers substantially all of the nutritional qualities of Pablum and all of its advantages of ease of preparation, convenience and economy. The base of Pabena is oatmeal (85 per cent) which gives it a fine flavor and offers variety to the diet.

Would you like some of both for use in your own family?

Mead, Johnson & Company, Evansville, Ind., U.S.A.

GENITO-URINARY TRACT ANATOMY FOR THE PATIENT

A new booklet "Genito-Urinary Tract Anatomy For The Patient" has been issued by the Medical Research Division of the Schering Corporation. This sequel to the popular "Pelvic Anatomy For The Patient," presents a series of medical drawings illustrating normal and abnormal conditions of the male and female urinary tract.

The illustrations were especially prepared as time-saving devices to aid the physician in explaining disorders and treatment to his patients. The booklet may be obtained by writing to the Medical Research Division, Schering Corporation, Bloomfield, N. J.

SQUIBB'S ARMY-NAVY "E" AWARD RENEWED FOR ANOTHER SIX MONTHS

A star has been added to the Army-Navy "E" pennants which fly over the New York office and the Brooklyn and New Brunswick, N. J., laboratories of E. R. Squibb & Sons. This is the outward symbol of the renewal for another six months of the "E" award first granted to Squibb in September, 1942.

Approximately one-half of the entire Squibb output now goes to the armed forces or lend-lease, and includes hundreds of products—from Dental Cream to Typhus Vaccine. Many departments are working around the clock to insure adequate supplies for both military and civilian needs, for Squibb men and wom-

en are determined to keep their "E" pennants flying, and to add a star at regular six-month intervals.

FREDERICK J. STEARNS HEADS DETROIT'S BLOOD DONOR COMMITTEE

Chairman of the Detroit Blood Donor Volunteer Service Committee is Frederick S. Stearns, who is also chairman of the board of Frederick Stearns & Company, 88-year old Detroit drug manufacturing concern.

Mr. Stearns assumed the chairmanship of the Detroit Blood Donor Station in January, 1942, and thirteen months later the Army and Navy reports of blood receipts ranked the motor metropolis as second only to New York.

By mid-April the total number of blood donors in the Detroit area had reached 162,153, which means that allowing for those unable to meet the medical qualifications of donors, upwards of 200,000 had volunteered.

Chairman Stearns credits the enviable showing to the application of a merchandising principle essential to any successful selling enterprise: Correct treatment of the "customer" so that he keeps coming back. Of the 21,000 donors in March, more than 9,000 were "repeaters." In one period, 65 per cent of all donors had volunteered one or more times previously.

RESEARCHER ON ATABRINE IS HONORED

An honorary degree of Doctor of Science has been awarded by St. Lawrence University to Dr. Alfred Einar Sherndal, plant superintendent of Winthrop Chemical Company, for his research work in making possible the synthesis and manufacture of Atabrine, synthetic substitute for quinine in the treatment of malaria, entirely from raw materials available in the United States.

TETANUS IMMUNIZATION OF MILITARY PERSONNEL

All military personnel on induction are being immunized against tetanus either, as in the Army, by three injections of fluid toxoid, or as in the Navy and Marine Corps, by two injections of alum precipitated toxoid (New England J. Med., 227:162, 1942). In addition a small or stimulating dose is injected prior to departure for a theater of operations and an emergency dose is given to those wounded or burned in battle or incurring other wounds likely to be contaminated with *Clostridium tetani*. According to recent report (Am. J. Pub. Health, 33:53, 1943), since June, 1941, when the present tetanus immunization program was adopted, there have been but four cases reported from the entire Army, and none of these was in immunized individuals. Although perhaps too early in the present war to draw any conclusions, it is of particular interest that no cases of tetanus have been reported from battle casualties.

For civilian use, especially in children, it is of decided advantage to accomplish simultaneous immunization against tetanus and diphtheria. Combined Diphtheria Toxoid-Tetanus Toxoid, Alum Precipitated, Lilly, is designed for prophylaxis only, affords effective immunity against both diseases, and avoids risk of serum sensitization which may follow use of an antitoxin.

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Prognosis After Injury or Infection of the Nervous System in Childhood*

By Bronson Crothers, M.D.
Boston, Massachusetts



A.B., 1905, and M.D., 1910, Harvard University, Assistant Professor Pediatrics, Harvard Medical School, Member American Medical Association, etc., American Pediatric Society, American Neurological Association, etc. Author of "A Pediatrician in Search of Mental Hygiene" and various papers in neurological and pediatric journals.

Recovery after injury or infection of young children is difficult to define unless growth and development are taken into consideration. This is particularly true if attention is given to the nervous system. It is obvious that recovery is inadequate if mere restitution to a previously attained status is achieved. The process cannot be regarded as complete until evidence is available which indicates that the child is going along a developmental road which leads to orderly and effective education and eventual general adequacy.

Any attempt to carry out investigation of this sort demands patience and assistance from skilled psychologists and social workers. The implications of such a study, however, are relatively clear and perhaps useful.

The major value of the approach is related to the medical and educational management of children during the months or even years which may elapse before a durable prognosis can be made.

■ ACCURATE prognosis after injury or disease of the nervous system in children is always difficult and sometimes impossible. Certainly the pediatric training is highly relevant and should be more useful than it is at present. The confusion that exists is due to various factors. In the first place the conventional training of most neurologists makes them effective in dealing with adults, but relatively insecure in dealing with children.

Much of the material which we need to discuss falls under transient supervision by neurological surgeons and orthopedists so that continuity of supervision by one man is infrequent.

The pediatrician, in theory, believes that he is able to act as a general practitioner for an age group, but the very fact that he is at the same time a certificated specialist makes him diffident about asserting his right to control if other certificated specialists invade his territory.

Thus he tends to accept the methods used by various groups as the only relevant ones and has a certain amount of insecurity about developing neurological and psychological techniques and attitudes of his own. The first necessity, as I see it, is to find out what we, as pediatricians, can use of the numerous techniques which are offered.

For the purpose of this paper I am not discussing the diagnosis of acute neurological conditions nor am I interested in the degenerative disorders. The group of cases that seem to me relevant consists of the numerous children whose nervous systems have been injured by trauma, by infections or by certain poisons like lead.

In a general way we ought to attempt to develop a method which will give us the following information at the time the acute episode has subsided.

1. The anatomical deficit.
2. The physiological and psychological status.
3. The probable effect of the lesion upon orderly growth and development.

In this connection the pediatrician must make himself sufficiently familiar with development studies from the psychological point of view to justify some effective attitude towards mental testing. Certainly he cannot accept psychometric evaluations as infallible.

*Read at the Seventy-seventh Annual Meeting of the Michigan State Medical Society at Grand Rapids, September 25, 1942.

The point of view that strikes me as acceptable is as follows: Development in the run of the mill of children is an orderly continuous process. Admittedly there are many variations which have no predictive value. Admittedly, also the child development institutes are able to show that extraordinary variations of rate may occur in individuals without known handicap. On the other hand there is a comforting uniformity in essentials in the year-by-year mental development of undamaged children.

The first step, therefore, is to establish a reasonable presumption that the child, before the injury, was normal. Obviously the earlier the injury the less the data, but even in birth trauma there may be presumptive normal antenatal development. The sooner the developmental history is taken the better. Naturally one does not try to collect information while admitting and starting treatment after accidents or during the height of encephalitis, but before discharge a developmental history can be obtained.

In an infant we may have to judge some things by indirect evidence. Brothers and sisters may be useful as controls. The conservative use of the evidence at this time may justify the assumption that the child had average capacity and that prediction of average development is justified. In an older child it may well be evident that superior or inferior development is to be expected.

If an adequate amount of information is available we have a useful standard against which progress can be charted.

It then becomes reasonable to use this curve of prediction to identify various stages. First, it is possible, in most cases, to recognize that the child is reaching the level previously achieved. In hospital records and often in the minds of teachers and parents this stage is assumed to represent recovery.

A second stage is also recognizable. The slow addition of items of advance may suggest progressive but incomplete convalescence. It is evident that convalescence may be a matter not of months but of years.

Finally, in favorable cases a steady progress along the predicted curve may be indicated. This alone is evidence of recovery as it should be defined in childhood.

Obviously all sorts of other methods of appraisal are available. There is some value in trying to deal with prognosis on the basis of diag-

nosis. It is clear that the correct diagnosis settles the prognosis in a whole series of reliable degenerative syndromes. For instance, children with Tay-Sachs disease always die in infancy, pseudohypertrophic dystrophy runs a relentlessly progressive course and so on.

A few nondegenerative diseases have almost equally disastrous courses. For example, lead poisoning of any severity is so likely to damage the brain irreparably that only long observation justifies the suggestion that recovery is complete. Studies by Dr. Elizabeth Lord and Dr. Randolph Byers from our hospital indicate that a relatively small proportion of the children who suffer from lead poisoning in early childhood reach the school system and that less than ten per cent who do reach this level can be regarded as adequate.

A peculiar situation seems to exist in infantile paralysis. Here irreversible lesions in the final motor cells are frequent whereas the changes in other cells of the nervous system are reversible.

It is possible, I believe, to collect data on a series of infectious diseases with considerable profit. For instance, there is certainly enough information available to justify optimism after mumps with cerebral manifestations, uncertainty after comparable involvement during measles and considerable pessimism if serious encephalopathy occurs during whooping cough. It is, however, quite evident that etiological diagnosis is a treacherous guide to prognosis.

If we are going to develop a plan of observation which fits the pediatric situation, we ought, I believe, to adopt one which is not too complicated, but at the same time is sufficiently elaborate to be useful.

Obviously if the anterior horn cell, its projection fibers or the muscle fibers are out of commission we get absence of function. This is paraphrased as flaccidity but absence of function seems to me a better term. The physiological situation can then be appraised by the simple process of subtraction. I am certain that those of us who heard the symposium on infantile paralysis this morning know the pitfalls in accepting too simple a formula, but certainly the loss of final units is relatively simple.

Any lesion of other pathways, in the presence of intact final units introduces the element of confused control. If the loss is sensory we get the ataxic phenomena, if cerebellar, more complicated disorders. If the basal ganglia are involved the

associated movements are upset. Lesions interrupting cortico-spinal tracts prevent orderly voluntary activities.

The point which I believe should be emphasized is that the simple procedure of arriving at a physiological appraisal by subtraction which is adequate as long as we are dealing with comparable units of final common paths, breaks down when we attempt to deal with cerebral lesions.

If we use some formula which lets us deal competently with cerebral involvement, from the standpoint of motor control we can talk intelligently about the physiological residue. Then we begin to lay a foundation for management.

The next step is to estimate the intellectual capacity of the child. Here we need the help of psychologists who can use psychometric techniques in the presence of physiological disturbances. The most dangerous helper is the psychometric tester without experience with children with cerebral lesions. With an adequate psychological study we can get a reasonable appraisal.

Next we need to know enough about the economic and emotional assets of the family to make a shrewd guess about the degree of competence which will be available in organizing education.

With some such appraisal we ought to consider the usefulness or lack of usefulness of some of the more elaborate methods of investigation. Electroencephalography is of value if any question of convulsions is raised but otherwise I have not been impressed with its value in establishing prognosis.

Pneumoencephalography is a procedure of definite severity. The evidence is tangible and often extremely useful, but I would like to make two very emphatic statements. First, there is no constant relationship between brain mass and disability and second, all that the encephalogram can show is the state of gross brain mass at the time of the examination. In infants the possibility of recovery of growth needs to be considered and, in any case, during, or shortly after acute disease the films may suggest permanent impairment, which is disproved by later films.

With all the information obtainable we are left with merely an appraisal as of the date of study. We now have to chart changes against the expected rate of advance.

For our purposes a straight ascending line

showing advance year by year is reasonably satisfactory.

Using this method, but also recognizing that it is an incomplete method, we can show a whole series of events. The children fall roughly into a few groups.

1. Where the level at the time of injury is never reached no one questions bankruptcy. The only warning, which is almost unnecessary, is to wait for months before admitting defeat.
2. A number of children reach, but do not get beyond the achieved level. These are the cases that confuse the literature.
3. Cases with prolonged course, irregular psychometric tests and eventual stabilization at a satisfactory rate of development. The word, convalescence, needs to be defined in pediatric terms just as recovery needs special definition.
4. Certain cases show true recovery.

The problems that arise are largely attackable if time and growth are properly considered.

With this general attitude it is interesting to see how things work out and by a combination of case reports and moving pictures a few points can be made clear.

Case 1.—This patient is now a girl of eleven years. When she first came to the hospital at the age of one year she was in the acute stage of pneumococcus meningitis. The course of the disease was complicated by abscess of the brain. In spite of everything she made an astonishing and prompt physical recovery. However, she was difficult to handle and had occasional convulsions. An excellent clinic decided that her intellectual capacity was hopelessly impaired and institutional care was arranged in early childhood.

This solution was not acceptable for two reasons: First, the child's intellectual status was reasonably adequate with an intelligence quotient of 80 so that the institutional physicians did not feel sure that she was properly placed among feeble-minded children and second, the warm-hearted family did not accept the solution. In any case she left the institution.

We next heard of her at eight years when her behavior was found to create difficulties at home. In view of the history we did another encephalogram and found almost complete restoration of brain mass. No important deviations were found on physical examination and her psychological tests showed an intelligence quotient of approximately 80.

In the four years since she left the ward at eight years this child has had a rather complicated life. At one stage she twice picked up unknown infants and took them home with her. Naturally this unexpected display of interest created difficulties in which the police were involved. She and her family, however, were relatively serene and deviations from socially acceptable behavior ceased. She is now going along in special class in school with considerable concessions and mak-

ing no trouble at home though her judgment is still defective.

This series of events is, of course, unusual, but it is interesting to note how confused a series of competent physicians were. Apparently convalescence, in this case, extended over many years. Now, to the best of our present knowledge, the child is progressing with irregularities of development, rather than general mental defect.

Case 2.—This girl, now seventeen years old, was first admitted to the hospital at five years with polyneuritis due to lead. The history suggested that ingestion of paint had gone on for at least two years and that various signs of lead poisoning had been misinterpreted by various doctors for about that time.

At this time her outstanding difficulty was motor weakness.

She recovered entirely from the motor weakness. When, after an interval of several years she seemed well and x-rays showed no evidence of lead, she was regarded as cured.

When she was ten years old she was brought to our attention because of difficulties in school. In part these were due to intellectual difficulties and in part they represented emotional distress. She was readmitted and found to be suffering from recurrence of lead poisoning with stippled cells and a significant amount of lead in the blood by spectroscopic analysis. At this time irregularities were shown on psychological examination and definite, though minor signs of involvement of the nervous system, were elicited on physical examination. For example, the child had Babinski reactions and hyperactive knee jerks. A pneumoencephalogram showed no gross change in brain mass.

When the psychological data were discussed with the school suitable concessions were made and all the difficulties at school subsided.

Now at seventeen she is completing her work in the grades and is a vigorous, friendly and competent girl. Her academic progress has been below the level which might have been predicted for her, but she has come through cheerfully.

It is difficult in this case to make a clear statement but certain presumptions are justified.

1. In spite of the fact that the major early signs pointed only to the final common paths, it is likely that the brain was involved from the start.

2. The psychological deviations which led to frustration at school were almost certainly due to cerebral damage, but there is nothing to prove whether the damage was of long standing or whether it was due to an acute encephalopathy due to renewed presence of lead in the blood.

3. In any event this case shows how confusing prognosis can be in the presence of poison like lead which can offer a continuing threat.

Case 3.—This girl was involved in an automobile accident at eight years. The intelligent parents were able to give a clear history of development before the accident, and accessory evidence was available. For

instance, she carried with her the homework which she intended to do during a short vacation and she had led her group in writing and performing a play.

Following the accident she was comatose for months and then slowly improved. When I first saw her a year later she had a curious type of cerebral palsy with athetosis and tremor on the right and spasticity on the left. Her speech was hesitant, but intelligible and she was entirely oriented. Her intelligence quotient was about 100. She had various visual difficulties.

An able neurologist, on this evidence, suggested that she had no mental deficit.

During the next year she improved in motor control and she could read large print. She did not show any ability to carry through intellectual work on the level which she had attained before the accident. When she left our continuous supervision two years after the accident we regarded her as still convalescent and urged the family to make all needed concessions.

The family then consulted a psychologist, familiar with children, but not familiar with neurological disease. The appraisal there was quite different. The feeling of this adviser was that efforts should be made to force the child to become independent. Since the serious visual disturbance was a barrier the suggestion was made that the child should learn Braille.

The suggestion seemed invalid to the family and absurd to those of us who had watched the child. Certainly in the presence of gross motor and sensory disorders the child would have had great difficulty from a physiological point of view and the emotional pressure would have been intense.

From our point of view the child is so handicapped that no effort should be made to force competitive living for the present. The confusion among advisers which exists seems to be due to failure to agree on definitions of convalescence and to varying degrees of awareness of the pitfalls facing psychologists, in the presence of cerebral damage.

Case 4.—The last case is a boy, now eighteen years old. He was delivered by one of the leading obstetricians of a large city by forceps. On the second day he was stiff and twitching and was seen by a pediatrician who watched him carefully for a week. At the end of that time no definite neurological deviations were noted. Some anxiety was felt but no definite diagnosis was made.

He held up his head at eight months, sat alone at fifteen months, walked at twenty-one months and began to talk at twenty-two months.

When he was first seen at the Children's Hospital he presented the typical picture of cerebral palsy of the extrapyramidal type.

During his first stay in the hospital, he impressed everyone as a friendly, responsive child with gross motor difficulties. Intellectually he presented evidence of irregularity rather than of mental defect.

The intelligent parents have managed to bring him up with entirely adequate sisters and brothers and had been able to cope with school work in various resourceful ways until adolescence was well on its way.

Then the question of vigorous competitive schooling

arose. The reappraisal of this child at seventeen was interesting and important.

First, like most of the children with severe extrapyramidal palsy he had not profited, to any useful extent, from any type of physiotherapy. Obviously the question of whether physiotherapists had been given a fair chance could be discussed endlessly, but it seems clear that the parents and the child would have persisted with any plan, if results had been obvious.

Second, although the motor difficulties had not increased, they were emotionally more upsetting in a grown individual than in a small child.

Third, the intellectual status, though consistent with some academic progress, was not adequate for competitive work at a high school level.

Finally, the boy himself accepts, at least verbally, the idea of limited objectives and is now leading a protected life on a farm. Emotionally the situation still has its difficulties, but, at least, medical advice has been consistent and the family has always been aware of the psychological information which has been available.

Conclusions

The real problem is to find a method of using clinical evidence in relation to growth and development in children. Obviously mere appraisal of deficit is not enough. What the family and the school need is an appraisal of assets. The pediatrician, should, I think, attempt to organize his material so that his diagnostic statements can be used by teachers and parents and so that his prognostic statements will also have value for teachers and parents. Ways of doing this are suggested in this paper.

MSMS

Low back pain, even with sciatica, is not always due to pathological conditions incurrent in the spine itself. There are many anatomic and constitutional factors which may be responsible for the condition.—HARRY E. MOCK, *Wisconsin Medical Journal*, April, 1943.

* * *

One of the radio soap operas Monday morning, May 17, dramatized the rationing of doctors as a great achievement. Doctors' calls were all collected by some administrator, some patients were sent to one doctor, some to others, no attention being given to the doctor of choice. Home and office calls were parcelled out, and in the "skit" the doctor seemed to like it. Another piece of propaganda?

JULY, 1943

Carcinoma of the Larynx*

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Since the advent of modern methods in treating carcinoma of the larynx, laryngologists have shown that the disease is curable in a high percentage of cases, especially when diagnosed and treated reasonably early. A number of cases still remain unrecognized and untreated until the best chance of cure has been lost.

Since hoarseness is frequently the only symptom of carcinoma of the larynx until late in the course of the disease, it is suggested that any person who remains hoarse for more than a few weeks should have a laryngeal examination.

Cases are reported illustrating the general types of surgical procedure that are used.

■ IN spite of the excellent results that have been reported from the surgical treatment of carcinoma of the larynx and in spite of the publicity that has been given to cancer in general by the lay press, a fair number of cases still remain unrecognized and untreated until the best chance of cure has been lost due to metastasis or local extension of the growth.

Furstenberg,³ commenting on carcinoma of the larynx stated, "85 per cent of the patients came for examination six months or more after the appearance of an altered voice."

Damitz and Dill² found nine and a half months to be the average length of time that hoarseness had been present before their patients presented themselves for examination.

In 1934, New and Waugh⁷ reported a consecutive series of 135 operations for carcinoma of the larynx. There were seventy-five thyrotomies with no operative death and sixty laryngectomies with one operative death. One hundred and seven of these cases had been operated at least five years previously and of these, 82.3 per cent of the cases in which thyrotomy had been performed and 56.1 per cent of those in which laryngectomy had been performed were free from recurrence of the disease.

*From the Henry Ford Hospital.

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The Jacksons⁴ report a series of 135 patients in which thyrotomy had been done. Of these, 82.2 per cent were cancer free after three years. Fifty-seven per cent of 130 patients on whom laryn-

was noticeable on swallowing saliva. There was no general discomfort. The remainder of his history was essentially negative.

On ear, nose and throat examination there were no glands palpable in the neck. The pharynx was neg-



Fig. 1. Case 1. (left) Entire epiglottis, anterior surface.
Fig. 2. Case 1. (right) Following removal of epiglottis.

gectomy had been done were free of recurrence after three years.

About tumors of the epiglottis, New and Figi⁶ state, "Tumors of the epiglottis of a low grade of malignancy are best taken care of when the lesion is definitely limited to the epiglottis, by performing preliminary tracheotomy. Then, by means of a Lynch suspension apparatus with a flat spatula, the growth may be removed under direct vision, a protected diathermy point being used."

Whether or not a tumor on or about the vocal cords can be adequately removed by thyrotomy or whether total laryngectomy is necessary depends on such factors as location, activity of the growth, fixation of the vocal cord and extent of growth, which, of course, is influenced by the length of time the tumor has been present.

I wish to report three cases which illustrate the general types of surgical procedure that are useful, depending on the nature, location and extent of the tumor.

Case Reports

Case 1.—A white man, aged fifty-three, was examined on September 12, 1941, at which time he stated that he had had a sore throat for about three weeks. The soreness seemed to be located above the soft palate, was not affected by swallowing liquids or solids, but

active. The nasopharynx was well seen and perfectly normal. The ear canals and drums were normal. The nasal mucous membrane appeared normal. There was no abnormal pus or discharge. On examination of the larynx an ulcerative lesion was seen on the anterior surface of the right side of the epiglottis. This lesion appeared to be raised above the surface and the surrounding membrane appeared dull. The impression at that time was that it was strongly suggestive of carcinoma. Temperature was 98.6, pulse 72, respirations 16, height 5 feet 7¾ inches, and weight 162¾ pounds, which he stated was about his normal weight. General physical examination revealed no abnormal findings. His blood pressure was 140 mm. systolic and 90 mm. diastolic. He was edentulous, and there was a small umbilical hernia present.

Hemoglobin was 15.6 grams. White blood cells 6,600. Kline exclusion test was negative. Urinalysis showed no abnormalities.

Roentgenograms of the chest were negative.

On September 17, 1940, several biopsies were taken from the lesion on the epiglottis. Microscopic examination was reported as follows: "Section reveals the surface to be well covered by squamous epithelium, which in one area has considerable keratin on the surface. The basal membrane has been invaded and the underlying corium infiltrated by large numbers of anaplastic, malignant, epithelial cells. These invade rather diffusely. There is no pearl formation. Mitotic figures are seen." The conclusion was squamous carcinoma, Type II.

On September 23, 1940, a tracheal tube was placed in at the level of the second tracheal ring. On October 7, 1940, the patient's pharynx, base of the tongue and larynx were thoroughly cocaineized and the patient was

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given pentothal sodium intravenously. A Lynch suspension laryngoscope was inserted using a special tongue blade which did not include the epiglottis. With surgical diathermy, using the cutting blade, the entire epiglottis was removed (Fig. 1). Vessels were coagulated with the coagulation current as necessary. The base from which the epiglottis had been removed was thoroughly electrocoagulated and eight gold radon seeds of a value of 1 millicurie each were inserted into the base. Microscopic examination of the epiglottis confirmed the diagnosis of Grade II squamous cell carcinoma, and revealed that there was an adequate margin between the widest extension of the tumor and the point of amputation. There was some pain on swallowing, and aphonia developed as a result of the postoperative swelling and reaction.

On October 16, 1940, approximately nine days after the operation, the voice had returned to a quality that was practically normal. The soreness on swallowing remained for a while, however. During this time the patient was being fed through an intranasal tube into the stomach which had been placed in before the operation. On November 2, the tracheal tube was removed, and also the intranasal feeding tube, and he was placed on a high caloric liquid diet. The tracheotomy wound healed in a few days without incident (Figure 2). The patient left the hospital on November 9, 1940.

At present, approximately thirty months after the operation, there has been no evidence of recurrence and he has been completely free of symptoms.

Case 2.—A white man, aged sixty-five, of Polish extraction was examined in the Out-Patient Clinic of the Henry Ford Hospital on June 26, 1941. He complained of hoarseness of nine months' duration which had grown progressively worse. He had been examined by a physician in his locality who had assured him that the condition was not serious. Since the condition progressed he had sought another opinion. There had been no cough, hemorrhage or weight loss.

On indirect laryngeal examination, a tumor was seen involving the anterior third of the right vocal cord. This was thought to be carcinoma. The remainder of the ear, nose and throat examination was found to be negative. General physical examination was found to be essentially normal except for slight obesity. The blood pressure was 142 mm. systolic and 90 mm. diastolic. Temperature was 99 degrees F., pulse 80 per minute and respirations 18 per minute. Weight was 179 pounds. Height 65 inches. Urinalysis showed no abnormalities. Hemoglobin 89 per cent; leukocytes 7,450. The Kline exclusion test was negative. Phenolsulfonphthalein test was run and found to be satisfactory. Forty-nine per cent of the dye was excreted in two hours.

On June 27, 1941, direct laryngeal examination was carried out and a biopsy of the tumor taken. Cocaine anesthesia was used. The tumor proved to be a squamous cell carcinoma, Grade II. Three days later tracheotomy was carried out under local anesthesia. The opening was made through the first and second tracheal

rings. The usual degree of general reaction followed the tracheotomy.

On July 14, 1941 thyrotomy was carried out.

Preoperative medication consisted of nembutal, grs.



Fig. 3. Case 2. Following thyrotomy, retraction of scar.

3, morphine sulphate, grs. 1/6, and atropine sulphate, grs. 1/150.

With 1 per cent novocaine, superficial cervical and superior laryngeal block were carried out with the method described by Adams.¹ With ½ per cent novocaine, the skin was infiltrated in the usual manner.

An incision was made through the skin and subcutaneous tissue over the larynx and the well ossified thyroid cartilage divided just to the left of the midline. The tumor was found to involve the anterior third of the right vocal cord, the anterior commissure and the anterior end of the left vocal cord. The tumor was excised and immediate frozen section examination indicated that the margin was adequate. The corresponding portion of the thyroid cartilage was removed and the area thoroughly electrocoagulated with the electric cautery. The edges of the thyroid cartilage were brought together and the muscles and skin loosely closed. A rubber drainage tube was allowed to extend to the opening in the thyroid cartilage and a small bismuth gauze pack put in. A tracheotomy tube was inserted in the original tracheotomy opening.

Postoperative reaction was slight.

On the ninth postoperative day the tracheal tube was removed. After two weeks he could swallow liquids so the Rehfuß tube through which he had been fed was removed. The neck wound drained for several weeks and then healed completely with moderate scarring (Fig. 3).

At present, approximately twenty months after the thyrotomy, there has been no evidence of recurrence of the tumor. The voice is satisfactory. He carries on his own retail clothing business as he had done before his illness and operation.

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Case 3.—A white man, aged sixty, was examined in the Out-Patient Clinic of the Division of Otolaryngology on July 3, 1940. He complained of hoarseness which had been present for about a year. He had con-

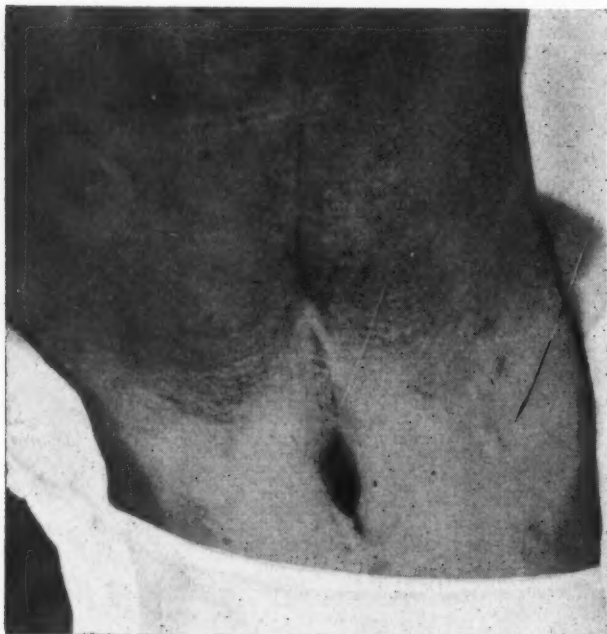


Fig. 4. Case 3. Following laryngectomy, permanent tracheal opening.

sulted a physician soon after the onset of the hoarseness who had treated his larynx with a spray. The hoarseness had grown much worse during the three months before admission. There had been neither pain, cough nor hemorrhage. He was a known mild diabetic.

On examination of the ear, nose and throat he was found to have a mild vasomotor rhinitis. On indirect laryngeal examination a tumor was seen involving the anterior two-thirds of the right vocal cord. There was no fixation of the vocal cord. The tumor was thought to be carcinoma. The remainder of the ear, nose and throat examination was negative.

On general physical examination, slight obesity and moderate generalized arteriosclerosis were noted. Urinalysis showed Benedict's test to be positive. Blood sugar determination was reported at 143 mgm. per 100 c.c. of blood. Hemoglobin was 80 per cent; red blood cells 4,560,000, leukocytes 8,700; polymorphonuclears 76 per cent, small lymphocytes 18 per cent, large lymphocytes 4 per cent, and mononuclears 2 per cent. The blood Wassermann test was negative. Roentgenograms of the chest were negative. He was placed under the observation of our Division of Metabolism for his diabetes.

On July 8, the larynx was cocaineized and by direct laryngoscopy a biopsy was removed from the right vocal cord. This proved to be squamous cell carcinoma, Grade III.

On July 15, under local anesthesia tracheotomy was carried out, the tracheal tube being placed at the level of the first tracheal ring.

The usual general reaction followed the tracheotomy.

It was felt that since there was no fixation of the vocal cord that removal of the tumor by thyrotomy could possibly be accomplished, but the patient was advised that laryngectomy would be carried out if it were thought necessary after the larynx was opened.

On August 5, 1940, preliminary medication consisting of 3 grains of nembutal and morphine sulphate, grs. 1/6, and atropine sulphate, grs. 1/150, was given. Deep and superficial cervical block and superior laryngeal block anesthesia were carried out with 1 per cent novocaine according to the method described by Adams.¹ The skin was thoroughly infiltrated with ½ per cent Novocaine. A few drops of 10 per cent Cocaine were dropped into the trachea.

An incision was made extending from the submental region to below the tracheal opening. The hyoid bone was divided in the midline and the cut edges retracted laterally. The thyroid cartilage was divided slightly left of the midline. The tumor was found to be rather extensive, involving the anterior commissure, the anterior two-thirds of the true vocal cord and apparently involving the right false vocal cord. It was removed, however, rather widely. Immediate frozen section examination was made and the margin found to be inadequate in the region of the false vocal cord and posteriorly in the region of the arytenoid. It was decided that laryngectomy was necessary. The larynx was thoroughly skeletonized and the cricoid cartilage and trachea divided, a tongue-shaped flap of mucous membrane being removed from the posterior wall of the cricoid to aid in closing the tracheotomy opening. The larynx was then removed from below upward according to the method described by New.⁵ The pharynx and esophagus were then closed with two rows of cat-gut sutures. The upper end was closed in the shape of a T. The trachea and cricoid were sutured to the skin and the wound closed. Drainage tubes and a bismuth gauze pack were left in place.

Microscopic examination of the larynx showed the tumor had invaded rather deeply but had not broken through at any point.

The postoperative course was without incident except that at the end of the third week it was necessary to close a pharyngeal fistula.

On September 5, 1940 he was dismissed from the hospital.

He was provided with an artificial larynx, but he has developed a pharyngeal speech which is quite satisfactory.

Approximately thirty-one months since the laryngectomy there has been no evidence of recurrence (Fig. 4).

Comment

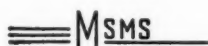
Carcinoma of the larynx is curable by surgical treatment in a high percentage of cases. In general, the earlier treatment is instituted the better the chance of cure.

Since hoarseness is frequently the only symptom present in the earlier stage of the disease,

any patient who remains hoarse to any degree for more than a few weeks should have a laryngeal examination.

Bibliography

1. Adams, Charles R.: Methods of anesthesia for operations about the head and neck. *Jour. Conn. State Med. Soc.*, (Nov.) 1938.
2. Damitz, J. C., and Dill, J. Lewis: Chronic hoarseness. *Ann. Otolaryngol., Rhinol. and Laryngol.*, 49:996, 1940.
3. Furstenberg, A. C.: Carcinoma of the larynx. *Jour. Mich. State Med. Soc.*, (October) 1931.
4. Jackson, Chevalier, and Jackson, Chevalier L.: Cancer of the larynx. *Jour. A.M.A.*, 3:1986, (November 26) 1938.
5. New, Gordon B.: The surgical treatment of carcinoma of the larynx. *Surg. Gynec. and Obst.*, 68:462-466, (Feb. 15) 1939.
6. New, Gordon B., and Figi, Frederick A.: Treatment of carcinoma of the larynx. *Surg. Gynec. and Obst.*, 62:420-423, (February 15) 1936.
7. New, Gordon B., and Waugh, John M.: The curability of carcinoma of the larynx. *Surg. Gynec. and Obst.*, 58: 841-844, (May) 1934.



Deafness or Impaired Hearing*

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A duty and responsibility of the family physician is to guide and direct hard of hearing and deafened patients away from useless

treatment and toward the possibility of alleviation or cure when such exists.

Complete deafness is rare and is always due to destruction of the perceptive mechanism in the ear. Nothing can be done except special training in lip reading and speech.

Impaired hearing may be due to lesions of the sound conduction apparatus or perceptive mechanism and in each case appropriate tests indicate the location of the pathology. As a rule lesions of the perceptive mechanism are not amenable to treatment, but efforts should be made to remove any etiological factor to prevent further loss. On the other hand impaired hearing due to lesions of the conductive apparatus can be improved or restored at the present time in the majority of cases by appropriate medical or surgical means. These treatments, including the Fenestration Operation for Otosclerosis will be briefly described, and the results of these treatments in a series of cases will be presented.

- At this moment your drum membranes are being agitated by waves of alternate rarification and condensation of air. The ossicular chain attached to the drum membrane at one and to the oval window of the labyrinth of the inner ear

the other end is setting into vibration the fluid that fills your inner ear. These fluid vibrations are being converted into nerve impulses in the Organ of Corti, and are being carried to the brain stem and thence distributed to both temporal lobes so that it is almost impossible to develop deafness from a brain tumor.

Whether or not you actually hear what I am saying depends not only upon the integrity of your ears, but also upon the state of your cerebral cortex; in other words your attention. If your attention is far away in a pleasant day dream you will remain completely oblivious to the nerve impulses coming from your ears. When Mark Antony said "Friends, Romans, Countrymen, lend me your ears," he might have said more exactly "Friends, Romans, Countrymen, your ears are responding nicely to the sound vibrations of my voice, now please lend me your attention."

Inattention is enough of a temptation to all of us, but to the hard of hearing individual who must exert an added effort to understand, inattention easily becomes an established habit. Now let any charlatan persuade such a person that he can improve his hearing, and the person will begin to listen and for a time will actually hear more, although his hearing acuity remains unchanged. This fact accounts for the numerous phony cures for deafness that come and go and will continue to come as long as hard of hearing persons have the money to pay for them. One of your duties and responsibilities as family physician is to be able to guide and advise your hard of hearing patients away from useless treatments and toward the possibilities of alleviation or cure when such exist.

We are now in a much better position to evaluate treatments for deafness than we were a few years ago, for we now have in the audiometer a very accurate and uniform method for measuring hearing acuity. The audiometer measures the threshold of hearing in each ear separately for each octave from 64 to 8,192 vibrations, and the result is tabulated on the audiogram. Normal hearing lies within ten decibels of the zero line, the decibel being a unit of loudness. The important hearing for practical purposes is that for the speech tones which lie mostly between 500 and 2,500 vibrations per second, so that the tones of 512, 1,024, and 2,048 in the audiogram are referred to as the speech tones.

*Read at the Seventy-seventh Annual Meeting of the Michigan State Medical Society at Grand Rapids, September 25, 1942.

When there is a loss of 20 decibels for the speech frequencies, the person begins to be aware of a slight impairment of hearing. At 30 decibels loss the hearing impairment begins to become embarrassing, while at 40 decibels the individual becomes definitely handicapped socially and economically. The lower limit of serviceable or practical hearing may be placed at about 40 decibels loss. At 50 decibels a hearing aid is very much needed; at 70 decibels the loud spoken voice can scarcely be heard close to the ear; at 90 decibels a shout can hardly be noticed at the ear and the individual will be considered "stone deaf" by his associates. The audiometer does not produce sounds louder than 100 decibels, since such tremendous noise would actually damage the normal ear. For practical purposes we consider a person to have absolute deafness if he does not hear at 100 decibels of loudness.

We have learned from the audiometer that normal hearing varies with fatigue, weather and other factors, as much as ten decibels. Therefore to be significant a hearing gain after treatment must exceed ten decibels for the speech tones. *No treatment for deafness can be regarded as of proven value until there is audiometric proof of hearing improvements greater than ten decibels.*

Complete deafness is rare, and is always due to complete destruction or absence of the perceptive mechanism in the labyrinth of the inner ear. Such an individual must rely entirely upon lip reading.

Partial loss of hearing or impaired hearing is very common and may be due to a lesion of the sound conducting apparatus, that is the external ear canal, the drum membrane ossicular chain, in which case we speak of a conduction deafness, or it may be due to a lesion of the perceptive apparatus in the inner ear in which case we speak of a nerve deafness. By means of diagnostic tuning fork tests it is possible to determine with considerable accuracy whether the hearing loss in a given case is a conduction or a nerve deafness. This differentiation is of primary importance for accurate diagnosis and effective treatment.

Nerve Deafness

The commonest cause of nerve deafness is old age, and is first seen in a loss of hearing for

the tones of high pitch. There is no known treatment for old age nerve deafness.

The nerve of hearing may be injured by certain toxins and drugs among which should be mentioned the toxins of severe influenza, typhoid, pneumonia, measles and scarlet fever, and the drugs quinine and aspirin. Chronic focal infection and tobacco in certain persons may be the cause for nerve deafness. Syphilis, tumors of the acoustic nerve, hypothyroidism, food allergy and exposure of the ears to loud sounds for a long time as occurs in aviators, artillerymen, boilermakers and pneumatic riveters, are other causes of nerve deafness.

If possible the cause of a nerve deafness should be determined and eliminated, since in certain early cases due to syphilis, food allergy, or focal infection prompt removal or treatment of the cause results in recovery, or at any rate prevents further loss of hearing.

Once nerve deafness from any cause has become established nothing can be done to restore the hearing. Vitamins, particularly thiamin, have been advocated, but in my experience the results have been uniformly disappointing. Prostigmine has recently been advised, but there is no audiometric proof of its value and I have found it to be useless.

In cases of nerve deafness electrical hearing aids are generally unsatisfactory and lip reading or an ear shell or trumpet must be used.

Conduction Deafness

While nerve deafness predominates in the later years of life, it is fortunate that in childhood, youth and middle life conduction deafness is more common, for with recent advances in the treatment of deafness we are now able to restore serviceable hearing in the majority of these cases.

There are five ways in which the sound conduction apparatus can be affected so as to impair hearing.

The easiest to cure is occlusion of the ear canals by cerumen. Not long ago a woman wearing an electrical hearing aid came to me with both ear canals completely blocked by wax. With the wax removed she no longer needed her hearing aid. Because of cases like this we believe that an otologic examination should always be made before a person is fitted with a hearing aid.

In childhood the most frequent cause for impaired hearing is blocked eustachian tubes by en-

larged adenoids. The air in the middle ear becomes absorbed and replaced by serum, so that this condition is also known as secretory otitis media. Secretory otitis media can also occur after removal of the adenoids due to lymphoid hypertrophies around the eustachian orifice. Typical is the audiogram of a child whose adenoids had been removed but who nevertheless developed a secretory otitis media that cleared up after irradiation of the naso-pharynx combined with inflations of the eustachian tubes. In adults secretory otitis media may come from adenoids, an acute head cold, a nasal allergy or malocclusion of the temporomandibular joint as the result of loss of support of the molar teeth, with distortion of the joint capsule pressing on the eustachian tube. Fortunately, and contrary to our old ideas, blocked eustachian tubes do not lead to progressive and permanent deafness. The audiogram of a man of 49 who after twenty years of impaired hearing was found to have enlarged adenoids which were removed will show restoration of practically normal hearing.

Both during childhood and adult life a perforated drum membrane or a suppurative otitis media are accompanied by impaired hearing. Cases of acute suppurative otitis media tend to clear themselves up, but cases of chronic suppurative otitis media require treatment and should always be treated until the suppuration ceases, not only to prevent further loss and perhaps to improve the hearing, but because some of these cases are due to a bone invading process and are dangerous to life. When the ear is dry the hearing can sometimes be further improved by the use of an artificial drum membrane to close the perforation. The hearing improves when cases of chronic suppurative otitis media were cleared up. The persons with perforated drum membranes sometimes have hearing restored with an artificial drum membrane.

Otosclerosis

The last, and the most frequent and important cause for conduction deafness is otosclerosis. Otosclerosis causes most of the cases of chronic progressive deafness in early and middle adult life, so that about 70 per cent of the members of the Society of the Hard of Hearing have this condition.

Otosclerosis is a disease affecting the hard bony capsule that surrounds the labyrinth of the inner ear, beginning as a focus of new-formed

spongy bone that replaces the normal hard ivory-like capsule. The most frequent area affected is just in front of the oval window, so that as the focus of otosclerosis slowly enlarges it gradually encroaches upon the oval window until finally it grows across onto the footplate of the stapes resulting in ankylosis. The hearing impairment which came on very slowly and insidiously becomes profound as the conduction of air-borne sounds become completely shut off by the obliteration of the oval window.

The cause of otosclerosis is not known, except that there may be an hereditary tendency. There is no medical treatment to arrest the process or to restore the hearing, and until very recently we could only make the diagnosis, advise against unnecessary and useless treatment and enjoin the use of an electrical hearing aid and lip-reading.

Because the hearing loss in otosclerosis is primarily due to a mechanical obstruction to sound conduction it has seemed reasonable to attempt to circumvent this obstruction by surgical means. For nearly fifty years otologists tried to make a new window into the labyrinth of the inner ear to take the place of the occluded oval window, but those attempts invariably failed because the artificial oval window would heal over by new bone and any hearing improvement would be lost. In 1924 a Frenchman named Sourdille first succeeded in restoring the hearing permanently in a case of otosclerosis by a complicated and prolonged three or four-stage operative procedure extending over more than a year. Although Sourdille operated on a considerable number of cases of otosclerosis apparently with a fair degree of success, his operation was too time-consuming and his results were too unreliable for it to be practical. It was not until 1938 that a practical means of restoring hearing in otosclerosis became available, when Julius Lempert, an American, improved upon and combined Sourdille's series of operations into a single one-stage technique. Lempert's original operation known as the fenestration operation has been further improved until now, with the technique in use during the past year, I am able to report a probably permanent hearing improvement in approximately 90 per cent of the patients operated upon.

Fenestration Operation

The fenestration operation consists essentially in removing part of the non-functioning ossicular chain, in making a new labyrinthine window into

the horizontal semicircular canal, and in connecting the drum membrane to this window by means of a plastic skin flap taken from the ear canal. In the completed operation the vibrations of the drum membrane are now carried directly to the new window without the intervention of a ossicular chain. While the hearing with this reconstructed conducting mechanism is never entirely up to normal, extraordinary improvements and restorations of practical hearing are observed in persons who were profoundly deafened for many years. The problem of bony closure of the new window has been largely solved by four important features:

1. The maintenance of strict surgical asepsis throughout the operation and in the entire after-care.
2. The use of an irrigating apparatus during the operation to keep the window immaculately clean and free from bone dust and blood.
3. The use of dental polishing and burnishing burrs to produce a perfectly smooth polished bone surface.
4. Covering the window with a thin periosteal-lined skin-flap.

The fenestration operation is done under avertin anesthesia, the ear having been carefully prepared, sterilized, and covered with sterile bandages some hours before. The external ear canal is enlarged by removing a triangular piece of skin and periosteum, and a self-retaining retractor exposes the mastoid bone.

Enough of the mastoid air cells are removed to expose the ossicular chain and the bone of the horizontal semicircular canal. The bony wall of the external ear canal is removed carefully preserving the thin skin that lines the canal. This skin, attached to the drum membrane, is now cut to form a plastic flap and a binocular dissecting microscope is moved into position. It is now possible to palpate the stapes in order to confirm the diagnosis of stapes ankylosis, and very often the new nodular otosclerotic bone can be observed where it has grown across the oval window onto the footplate of the stapes.

With the microscope to give adequate magnification, and with the irrigating apparatus attached to provide a flow of sterile normal saline across the horizontal semicircular canal, the new window is now made in the latter, using the den-

tal finishing and burnishing burrs. The completed window into the labyrinth of the inner ear lies directly above the oval window and is slightly larger than the oval window. The plastic skin-flap is now placed over the new window, and is held in place with pledgets of vaselined gauze. The entire operation takes about two or two and one-half hours to complete.

The hearing which may be noticeably improved immediately after the operation, declines during the first week and then slowly improves to reach its highest level two to six months after the operation.

Results

In my experience in 261 operations over a period of more than four years, bony closure of the new window occurs if at all, generally within six months of the operation, so that a hearing improvement maintained for longer than six months may be regarded as probably permanent. Except for temporary dizziness for a few days or a week or two there is usually little discomfort or annoyance from the operation, and the patient is out of bed on the third or fourth day.

The fenestration operation is not always successful. There are occasional cases, about 1 or 2 per cent of the operations, where the hearing is worse instead of better. The poorer hearing ear should always be selected for operation so that there will be no risk of making the good ear worse. In another 6 or 8 per cent the hearing improvement is only temporary or is less than ten decibels for the speech tones and is unsatisfactory. In the remainder the hearing will be improved permanently, from 10 to 47 decibels above the pre-operative level. As a rule the hearing from a satisfactory fenestration operation surpasses that from a well-fitted electrical hearing aid. Definite economic rehabilitation will occur in the majority of properly selected cases. I have had no serious complications and no fatalities in any of my cases. I began this work over 4 years ago.

The fenestration operation is suitable for cases of otosclerosis with good bone conduction indicating a good nerve of hearing. The ideal candidate has a 50 to 60 decibel loss for the speech tones with normal hearing by bone conduction, but worth while hearing improvements can sometimes be obtained with 80 to 90 decibels loss.

While the results of the fenestration operation

are still far from perfect, they are sufficiently encouraging so that this new development promises to become one of the most important advances ever made in the treatment of deafness. The individual who in the prime of life finds that he is slowly losing his hearing from otosclerosis for the first time may have hope of regaining most of what he has lost. In order to convey to you what it means to such a person to regain his hearing, I should like to read part of a letter from the wife of an acoustical engineer who recently underwent the fenestration operation.

When I submitted to the fenestration operation in June, 1942, I had absolutely no comprehension of what restored hearing would mean. Never once in my fifteen years of deafness had I imagined the joy of sounds normally heard. . . . The earphone I had worn since Christmas 1937 seemed a fine thing; it was an instrument of good make and my family and friends showed me much consideration in the using of it. I counted myself fortunate to have mastered the handicap so well, and was often complimented on the ease with which I carried on a conversation. . . .

During the ten days in the hospital there were no signs of improvement and I dared not think of what the result might be. On the tenth day I was taken home, and during the automobile ride, there came strange and contradictory messages from the two ears. . . . This was amusing as well as exciting, because it marked the first consciousness of sensation in the right ear. . . .

On the twelfth day the bandages came off and a hearing test in the doctor's office showed an increase of ten decibels of hearing. Then the fun began. The removal of the bandages may not have been quite so dramatic as the movies would show it when sightless eyes are made to see again. The function of hearing is so different a thing than that of sight anyway, that the realization of its restoration is a much more subtle awareness. But surely in the week that followed there were enough exciting new experiences for any scenario!

I remember walking rather shakily downtown and being amazed at what a noisy village we lived in. Actually it is a quiet little four corners, but the extreme quiet I had known was not the true level. Hearing tremendous motors bear down on me from behind and finding them to be only innocent, ordinary autos; sitting quietly at a store counter and having conversation drift into my ear—I didn't mean to listen in, but the novelty of being caught up in the commonplace visiting of neighbors and acquaintances, even strangers, tied me up with the world I had lost; to be part of my own house once more, and be spoken to from room to room, or up and down the stairs, meant undescrivable joy. . . .

The next test in the doctor's office, nineteen days after the operation, showed a hearing gain of thirty-three decibels, which has remained in each successive test.

It had been so long since the piano had meant pleasure that sitting down to that instrument for the first time brought a real peak in the curve of happiness I climbed. The richness of tone, and the endurance of sounds and musical colors I had completely forgotten. That is the insidious effect of progressive otosclerosis, its onset is painless and usually so gradual that many sounds are given up quite unconsciously. Did you notice that I said I had been deaf for fifteen years, yet had worn an earphone for only five? That is because I sought mechanical aid only when I began to lose speech sounds, or contact with people. Looking back now I see that I must have spent ten years giving up small sounds in every-day living without knowing it. You may say, "How lucky you were to be spared the ugly scratches of noise we must endure!" But the answer to that is, "One gets used to them very quickly and finds that a small price to pay for having all the good sounds back."

Playing the piano at first brought real pain to the ear, and only short practice times could be indulged in. As a matter of fact, *all* sounds in the first two weeks seemed too loud, but probably this was because I was not used to them. The quality of the restored hearing is so natural that this pain passes away very soon indeed, however.

Appreciation of the re-education in music that is opening before me may be keener in the knowledge that I had taken a college degree in music and piano in 1932. A month following my graduation recital in piano, the father of the surgeon who performed the fenestration operation in 1942 gave me this verdict after his examination of my ears: "You've got progressive otosclerosis, and there is nothing to be done about it, so put on an earphone and make the best of it."

A self-confidence is returning also in this awakening. As a deaf person I could not understand why the piano no longer brought pleasure, because the memory for sounds is so poor that I could not remember what I had lost. The nervous strain of carrying on with deafness is a much deeper and more subtle thing than anyone who has not known both hearing and its loss can possibly evaluate. I suppose this may vary with individuals, but a hard of hearing person, no matter how magnificent his acceptance of his handicap may appear, must make a tremendous effort to stay tuned in with the world. It is with a good deal of surprise that I find myself writing these lines, because I may safely say that I thought that I was well reconciled to the fact of deafness. But in many ways, in the depths of the subconscious, I had never accepted deafness. The psychology of deafness is a very real thing, calling for a special sympathy which I am only now developing!

I certainly do not want to seem ungrateful for the five years' excellent service the hearing aid gave me. I hesitate to think what those years without its help might have been. But, the point I do make, is that the best earphone is a poor substitute for normal hearing. If this seems too obvious a statement, it is only that I, who have been through the looking glass of the distorted and the undistorted reflection can hardly believe my ear now that it has been given back to me.

Diagnostic and Therapeutic Problems of Obesity*

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The synopsis of the paper will be as follows: Obesity is always caused by disproportion between the intake and expenditure of calories. Increased intake may be voluntary and conscious or not recognized because of several features. Sometimes there is excessive hunger due to hypoglycemia, habitual overfilling of the stomach, addition to concentrated foods, or social pressures for eating. Decreased expenditure of calories may be associated with physical handicap, hypothyroidism, psychological or economic handicaps at activity. There are certainly constitutional and genetic types of obesity. It seems impossible to make any direct correlation with endocrine factors in the direct etiology, however. Clinical types will be illustrated and the therapeutic program on dietary restriction adaptable for different patients will be explained.

■ IN discussing the subject of obesity, I think it is extremely necessary that we give attention first to the question of definition of terms. The word "obesity" meaning too much fat would seem to define itself, but the question always comes on that "too much." Is it a matter of taste, depending upon the preference of the individual for figure, or upon appetite, or is it to be based on actual biological facts with demonstrated advantages or disadvantages of certain proportions of height and weight?

For clinicians it becomes necessary to have something in the form of a reference standard which does not depend merely on the whim of the individual; and yet I shall have to say that all of us will do better by and large if we use our eyes and inspect the nude figure or the slightly draped figure, rather than being slavishly addicted to any table of height, weight and sex.

There are circumstances where one must have such a table in order to be convincing, and in order to have prediction standards as to what the goal of a reduction program should be. We recognize, however, that in using any statement of a single weight for a given height, age and

sex, this figure represents a mathematical average based on a large number of observations of humans supposedly well. Whenever one is dealing with averages, he wants to know how much spread there is in the original data between the highest weight and the lowest weight for that given height. All the tables that are in current use in medicine are based on the concept of allowing variations of at least ten per cent above and below the average figures quoted.

Assume, for example, that we were dealing with an individual of height sixty-three inches and weight 120 pounds. Ten per cent leeway would mean ten per cent of the 120 pounds or twelve pounds, and one would have therefore to consider such an individual with height sixty-three inches as being within normal limits all the way from 120 minus twelve or 108 pounds up to 120 plus twelve or 132 pounds. Now, I submit that if an individual whose approximate weight is 108 pounds should increase to 132 pounds or put on twenty-four pounds, she will know it without our having to tell her that she is obese, or vice versa. We can tell those things better by the clinical judgment of the experienced eye. That ten per cent leeway must be allowed not only for taste, but because of variations in the antero-posterior diameter of the chest, variations in how heavy the skeleton is, and in the anthropological types.

If one is interested in trying to get a more definite or rigorous definition of this, he will get very little information in the literature. Some of you may recall two extremely significant papers by Lieutenant Commander Behnke and his collaborators in the *Journal of the American Medical Association* a few months ago in which they approached this problem. Using rather rigorous standards of height and weight which are provided for the military service of our country, they find that there is a significant number of very vigorous, strong, healthy young men who would be excluded from the military service because they are too heavy, and some of these men are among the stellar athletes. Why should they be excluded?

They therefore took up the study and said: "Obesity means too much fat; not too much weight. There can be a distinguishing method worked out. What should it be?" A very obvious thing has been tried—recognizing that fat has a low specific gravity, that it floats on water.

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Therefore, they have immersed their subjects completely in a tank of water and determined the volume by the water displaced, which is simple physics.

It isn't simple clinical manners, however. Imagine trying to immerse each of our patients in order to study his or her obesity. Physical equipment as well as social problems are involved in this whole question. It isn't extremely practical then for you and me in general practice, but what Lieutenant Commander Behnke has demonstrated is this: That there are some individuals who are overweight and whose specific gravity of the body as a whole is low. They are fat. There are other individuals who are overweight by these conventional standards, the specific gravity of whose bodies compares with that of the slender and a very acceptable military type and they are not fat. They are just big men.

What can you and I do about it? Well, until somebody works out simpler methods for clinical application, we simply have to look them over, and I think I can recognize by and large the man who is too fat and the man who is simply a tremendous specimen with large bones and musculature and large internal organs as well. Now, I think that represents a very interesting approach, and I hope it can be developed and made more simple; but in the meantime, you and I must recognize that we can spot obesity with our eyes perhaps better than we can with the measuring stick and scale.

Another problem that comes up in the discussion of obesity is the fact—we may as well recognize it as clinicians—that the style makers got the jump on us. The real urge for reducing excess weight did not come from recognizing physiological disadvantages but psychological disadvantages—that is, of fitting the style concept of the day and age. That is a very potent urge for women and for some men, but there are physiological disadvantages with which we must be armed when we are going to talk with our patients.

The physiological disadvantages are numerous and are well worth remembering. Obesity is a disadvantage to the heart, to the peripheral circulation, to the respiratory system, to the digestive system, to the skeletal system and to the pancreas. Perhaps there are a few other disadvantages, but those things we can elaborate on if

necessary, in lay terms for our patients. We will not need to use that kind of argument for any young woman between the ages of fifteen and forty-five. We may have to use such reasons before she is fifteen and after forty-five and we will require them much more frequently with men. It is difficult to get the girl or boy under adolescent years to take the weight problem seriously. They may, therefore, have to be disciplined if we are going to achieve anything in reducing them, and discipline must begin at home via the parents. These disadvantages may have to be explained then to the patient and to the parents involved.

The next problem which has been very widely discussed is concerned with the etiology of obesity. Now, I am quite in agreement with those who say that obesity is due to eating more than one needs, but I do not agree that it is the same as saying that obesity is due to gluttony or laziness. People vary in the need for food, depending upon not only exercise, but also certain inherent characteristics of the body.

Is this problem of obesity—or leanness which is the other extreme—an endocrine problem? Seldom. Is it a metabolic problem? Always. By that, I mean merely that it is a problem in maintaining a good balance between the intake of energy in terms of calories and the expenditure of work in exercise and heat in terms of calories. If that balance is disturbed in the direction of intake of more calories than are expended, obviously there will be a gain of weight. Now an individual that tells us that he gains weight without eating or by eating an insignificant number of calories, is doing one of two things. He is either reporting on very temporary gains of weight due to water accumulation, which is not a permanent problem; or he is not recognizing the intake of calories. That has been proved in enough cases to make it a dogmatically safe statement. We can say to your patient, "You can't gain weight without your eating more calories than you put out." In proportion to our insistence and our conviction on that matter will be our patient's conviction and our patient's success in reducing.

Now, we must still come back to certain clinical types of obesity and I think it worth while to illustrate some of these. I will point out certain of the deficiency types that lead to obesity.

Case 1.—This patient is labelled osteomyelitis. She was assumed to have adiposogenital dystrophy by the first clinician who saw her in the hospital. Her figure suggested it too. I think we can read from the figure nothing except the obvious fact that she was obese and overweight, and a careful study of her showed that she had only one deficiency, and that is in exercise because of the osteomyelitis in the heel, which kept her off her feet. She had plenty of time to eat, had an adequate appetite, and every reason to indulge it until she was instructed and kept on a definite diet in the hospital. When she got home she gained weight again because she was unwilling to follow the rules. That is one kind of deficiency. It is a metabolic problem; it is not an endocrine problem at all. It is not a deficiency or disturbance in any of her glands. That was assured from the rest of the examination made in her case.

Similarly, I might show you the patient in whom the deficiency is not so much of exercise as a deficiency in certain social satisfactions: A school teacher, a maiden woman in her thirties who admitted after we had studied her problem that, due to her lack of social contacts and interests in life plus the irritation of an invalid and demanding mother, she took refuge in the pantry and gained weight. Now, that mechanism is not infrequent, and it shows up in bizarre forms. It is worth remembering. I wonder how many of us when we are bored or unhappy will reach for something to eat?

Another type in this problem is that of familial obesity. The patient is the daughter, who was brought in by the mother. This is so characteristic that it makes it sometimes difficult to keep a straight face when a fat mother brings in her fat daughter for me to find out why she is obese and tell her what to do about it. Now, maybe that is an inherited tendency either to skeletal type or to fat distribution. This is an involved question which is extremely difficult to settle. Maybe that child has learned certain manners of eating from her mother. We know that does occur in some patients. The two things might occur in both mother and daughter, the congenital type, and improper habits of eating. However, I have discovered that these mothers usually expect to get two prescriptions for the price of one, and the success has often been determined by turning to the mother and saying to the daughter, "Perhaps you can get somebody else in your family to go on this diet with you, so that the two of you will be doing it at once." Occasionally the mother will break out in a laugh, and some-

times she will look a little astonished and then really admit she wanted to try but didn't have the courage to start by herself.

I do know that a pre-adolescent daughter will almost never reduce unless her fat mother will go on the program with her. It takes just a little straight forward speaking in such a familial situation to get the program under way.

The next case shows a problem which is more definitely of an endocrine type.

Case 2.—This patient had myxedema coming on gradually during several years before she was seen, and I present this to show how little obesity is associated with a profound and lasting myxedema. She was overweight, something like forty pounds, but the experience with this particular patient is not typical of what happens in the weight control of myxedema patients. She was placed upon thyroid given regularly and her basal metabolism brought up to normal with the extensive and gratifying clinical improvement that is well known. She was at the same time put on a reduction diet as we would for other patients and reduced weight. Did the thyroid help her reduce weight? No, for she kept on using thyroid and relaxed her reducing restrictions. She thought she would depend on thyroid, she leaned on the cane and the cane would not support her. Her weight went back up.

This patient has demonstrated what we have predicted repeatedly, that thyroid is an ineffective method of reducing weight, that it has little to offer, and it is only effective if thyroid dosage is pushed so high that we produce artificial thyrotoxicosis. I refuse to be a party to that technique of producing thyrotoxicosis in order to reduce excessive weight. She has shown by diet and treatment of myxedema that these two things must be thought of separately. I therefore recommend urgently that you do not use thyroid to reduce weight unless you have definite clinical evidence of hypothyroidism, separately from excessive weight.

Another type of obesity, almost a caricature of the human form, is a woman who is also diabetic. Did the diabetes produce the obesity or vice versa? Which is cart and which is horse? She had both when she arrived at the clinic. We do know, statistically speaking, that a great many diabetics and probably a majority of them, are obese at the time the symptoms of diabetes occur. That is not true of all diabetics. We do know another thing, particularly due to the work of Newburg and Conn at Ann Arbor, that long con-

tinued obesity leads to a reduction in the tolerance for sugar, which is the development of one type of diabetes. We know also, if such an individual can be persuaded to bring the weight back down to normal by dietary limitation, that the tolerance for sugar improves and all evidences of diabetes even determined by blood-sugar tolerance tests may vanish. We must think of obesity as an etiological factor in diabetes, but whether it is an endocrine mechanism or not, is still unexplained.

Case 3.—This patient shows another aspect of this problem of the pancreas, and its participation in sugar tolerance. This fat girl did not have diabetes, but quite the reverse. I would call attention to the blood-sugar curve. The relatively slight increase which occurred following a glucose tolerance test to a figure of 111 milligrams per hundred cubic centimeters one hour after the sugar was administered, and a drop to sixty-six three hours after the administration of this sugar breakfast. The mechanism which is involved in this rapidly descending blood-sugar curve produced obesity. She has the normal response to decreasing blood sugar which is hunger, and she was indulged and encouraged in the indulgence of her appetite by her parents, her grandparents and aunts, all of whom had seen an older sibling who was underweight and couldn't be made to grow. They fed this girl up and she became obese by unwise indulgence.

This is hypoglycemic obesity. The hypoglycemia is here merely a functional response to an excellent or better than normal tolerance for sugar. Whether it is because the patient has a pancreas that works overtime or whether it is because she has a storage mechanism that is greater, we do not know. But the sum total of her mechanisms for using sugar work so well that she has a functional hypoglycemia after meals and she gets hungry and goes to the pantry for cookies or candy or sandwiches. She reduced perfectly well on dietary control, but the next summer when she went to visit grandma again, grandma just couldn't believe the doctors were right so she filled her up and rounded her out. I think that is fairly frequent among the fat children we have to see, and it is an explanation for the hunger there.

What should we do with such a girl during that period of hypoglycemia and hunger? Shall we just say, "Steel yourself; don't touch a bit of food?" It works with some children but it will not work with a great many. The better thing to do is to give a little juicy fruit as a source of glucose, or a bit of hard candy—not chocolate—in order to give a little sugar and bring the blood-sugar back up and relieve the hunger. It is much easier to meet a physiological

demand than it is to try to be iron-clad in discipline on such matters.

The next case shows the same hypoglycemic type in an adult.

Case 4.—This woman, well past fifty years of age, with a very ungainly figure had exactly the same problem and was reduced by exactly the same kind of diet, losing 100 pounds. The repair of a hernia was the original complaint that brought her to the hospital.

The striking thing about these patients is that when we put them on a reducing diet, such as I shall describe, they lose weight and are more comfortable than on their usual diets. They lose the hunger between meals which was driving them to excessive food intake.

The secret of that kind of diet is merely the use of a moderate amount of carbohydrates at a meal rather than a large amount of it, cutting the carbohydrate content of the meals down to thirty to forty grams at each meal. The smaller amount of carbohydrates provokes less stimulation of the mechanisms by which sugar is stored and used and therefore provokes less hypoglycemia two to four hours after a meal, less hunger and less temptation, and therefore greater comfort in following the diet.

The next case is a boy who was a genuine case of adiposogenital dystrophy or the so-called Froelich syndrome. Adiposogenital dystrophy is something that I wish to expand on a little bit more.

Case 5.—This boy should have been showing definite signs of adolescence. The penis was small, the testicles were present but small; there was no axillary or pubic hair and no enlargement of the larynx. Adolescence was not so late that we could be sure it would not appear, but there had been no development. He had been treated with thyroid without benefit. He reduced very satisfactorily on diet control. He was given gonadotropic pituitary material to stimulate the growth of the genitalia and they have developed; but one of the very significant things about this picture is not the obesity, but the fact that this boy shows a wide pelvic girdle. The structure of his skeleton is of a typical sort, between the feminine and masculine types. He does not have the broad shoulders and narrow pelvis, which I consider far more important than the matter of obesity.

Let us consider two brothers.

Case 6.—These boys, twenty-four and twenty-eight years old, both suffered from infantilism. That is, they had very small testes and no pubic or axillary hair,

very little voice change and no palpable prostates. The younger one was long and lanky, his bones were abnormally long and his pelvic girdle was abnormally broad with reference to his stature. The same thing can be said of the older brother who had a slight obesity in addition. Here is genital dystrophy with and without adiposity in two brothers, who have the same problem.

Let me emphasize the remarks about the greater importance of skeletal proportions and skeletal development than of the obesity, which is only incidental and not necessarily concerned with the endocrine disturbance. This can occur even in women postpartum.

Case 7.—This woman had a reasonably normal figure as well as normal fertility until after pregnancy when misfortune overtook her. She developed a definite obesity. What made her fat after pregnancy, what made her have menstrual irregularity and lose her fertility after pregnancy—those are serious problems which we are having to face, but we are beginning to see light.

Case 8.—Another patient less obese, in addition to the obesity and some menstrual irregularity, had an interesting phenomenon—diabetes insipidus which occurred after pregnancy. These phenomena of obesity, disturbances in her fertility mechanism and disturbance in her water metabolism are all referable to the disturbances in the region of the pituitary, not just of the pituitary itself.

Silhouette drawings of the pituitary gland obtained by Sheehan, the British pathologist, from a series of women who died following a shock-like delivery occurring within the first day postpartum, are interesting. (Showing slides.) The black areas are infarcts. The stippled areas are old healed infarcts and the areas shown by stippled and black areas refer to cases that had two shock-like deliveries, recovering from the first and dying after the second one.

A very significant group of such patients that have been studied by Sheehan and other pathologists confirm this theory. It looks as though the association of the shock-like delivery with infarcts in the pituitary will give us the localization anatomically of something which can explain at least the menstrual irregularities and possibly also the diabetes insipidus as pituitary affairs. The diabetes is a posterior pituitary deficiency and not an anterior pituitary problem, and the infarcts are pituitary problems which are related to the fertility mechanism.

In a diagrammatic representation of this whole area taken from the work of the late Dr. Ranson of Northwestern, the pituitary is shown with the stippled area of the anterior lobe. Behind it is the posterior lobe, and coming down into the posterior lobe the fiber tracts which arise from the supra-optic nuclei in the hypothalamus. It is now known that diabetes insipidus may be caused by any one of these three general types of lesions: Complete destruction of the posterior lobe of the pituitary or the interruption of the fiber tract, completely cutting off the innervation of the posterior lobe, or destruction of the supra-optic nuclei in the hypothalamus.

Now, I would like to call attention to a further fact: there are other nuclei in the hypothalamus and those nuclei are associated with such factors as weight maintenance, temperature control, autonomic nervous activity. All of this area, the hypothalamus and the pituitary just below it, is relatively small.

With the evidence of postpartum infarction involving the anterior pituitary, with the known hypertrophy of the pituitary and the change in the circulation of the pituitary region during pregnancy, we are beginning to have the evidence of the anatomic localization for permanent disorders that can follow pregnancy. We think, therefore, that there is an anatomic disturbance in this area which has caused such things as obesity, obesity with menstrual irregularity and diabetes insipidus and other things which could not easily be shown by slides, the autonomic and, the temperature control disturbances which are seen in some patients postpartum.

We used to put such women down as simply neurotics—that they were nervously disturbed. The question is “why?” What happened to make them nervously disturbed when they were previously stable types? There is still a great deal of investigation to be done—we are getting into neurology, into the disturbance of a certain area in the brain intimately related to the metabolic problem, and I believe we are going to differentiate ultimately between these neurogenic and endocrine types of disturbances.

Case 9.—This young woman became obese six weeks after she had an acute cerebral illness. She had acute encephalitis and the only residual in her case after the first few weeks of this acute illness was sudden and intractable obesity. I said intractable because she was

not willing to go on a very thoroughly restricted diet in order to allow any decrease in weight to occur. She had no adiposogenital dystrophy and she had no evidence of endocrine disturbance. She represents that well-known tendency of encephalitis to cause permanent scarring in the basal areas of the brain. Sometimes it produces obesity and sometimes it results in aberrations in temperature control, et cetera, depending on which one of these nuclei in the hypothalamic area are permanently damaged.

I think that some of the congenitally obese types who find it so difficult to reduce have congenital deficiencies in the hypothalamic areas. That would be a hard thing to prove even by postmortem examination, but it is a realm in which research is needed, and it will become available as we get better measures of hypothalamic functions.

Case 10.—This patient presents the curiosity of short stature, obesity and primary amenorrhea. We think she represents a very uncommon type—absence of ovaries. It is not typical of adiposogenital dystrophy. Some of these girls do not have ovaries but they do have the rest of the features of the female. The skull of this patient shows a very small sella turcica indicating that she has a very small pituitary.

Case 11.—Another very uncommon type of obesity is basophilism. Besides the obesity, and the striae on the abdomen, this patient has hypertension, and the alteration toward the other sex. This occurs in men as well as in women. In addition to the abdominal striation is a curious posture which is due in this case to compression fractures and decalcification of the back. As a matter of fact, there is no lost weight, simply lost stature, just telescoped on himself.

Case 12.—In this patient a diagnosis of basophilism was made, because she was obese and had too much hair, in rather masculine distribution. There was a very fine fuzz on her face. She was hypertensive, obese, lost her fertility and possibly had a basophilic tumor. We doubted it because after we treated her with reducing diet, gave her gonadotropic pituitary material which would increase her fertility, she became pregnant and went to term. She still has her hair although she brought her weight down.

Case 13.—This patient presents another curiosity. Fortunately, it occurs very seldom. The striking feature is the absence of obesity in the lower part of the legs and in the arms, with a terrific accumulation in the torso. This patient did reduce very satisfactorily on diet.

Case 14.—This patient, a very curious type, has a massive deposit of calcium in the frontal bone. There is nothing unusual about the pituitary in this case. The patient had a terrific accumulation of fat and likewise

would respond very satisfactorily to dietary control. We don't know why there is an association of obesity with this hyperostosis of the internal frontal bone. Some of these patients do not become obese, some do.

Case 15.—Here is just a plain, common fat woman. I think she might benefit by a little plastic surgery, for the apron of loose skin with the small amount of fat that is left her would disappear in a few months on a reducing diet. Plastic surgery is a matter which is elective and not frequently needed.

Method of Reducing

How do we go about this reducing? It is a very simple matter and the details are to be found in most of the books on diet therapy. We use for these patients instructions made up of one sheet of paper folded into four pages, providing two different menus, the 1200-calorie menu and the 930-calorie menu. The 1200-calorie menu has about 125 grams of carbohydrates per day. The 930 has about 90 grams of carbohydrates per day. Both of these are prescribed in terms of simple portions. The portions are defined on the printed sheet in terms of spoonful or slices and number of grapes and so forth, so that they are in simple measurements that anybody can use. There is no necessity for a scale and there are no unusual foods prescribed.

In this type of diet we have a very liberal breakfast. A great many patients say, "I don't eat that much," but they learn very quickly. We do insist on including in these diets everything which we believe necessary for the safe maintenance diet with the exception of fats and carbohydrate calories and with the exception of fat soluble vitamins, because we have curtailed the amount of cream and butter and milk.

The supper or lunch meal we use at noon or evening, depending upon the eating habits of the individual. Here again, the limited portions are defined in simple terms. We include some butter and some milk, and fruit with all the menus.

Dinner is the largest meal of the day. Those are ordinary meals except for the size of the portions. We use no pie, no cake, no cookies, no candy, no whipped cream, no salad dressings, nor other things like that.

I think it is important that the patient should be instructed on two things in addition to what is shown on such an instruction sheet: First, that they are to follow this diet until they reach a predetermined optimum weight which should be set for them. After this, they should follow

the same diet but add to it whatever other foods they desire so long as they do not regain weight. That regaining of weight is to be prevented by the use of judgment and selection of foods. These diets provide a skeleton of all that is necessary in protein, in minimum carbohydrates and minerals and vitamins, with the exception of the fat soluble vitamins. In order to insure an adequate intake of fat soluble vitamins, to prevent deficiency, I follow the routine of prescribing one capsule of vitamin A and D preparations daily. There is a great variety of such preparations on the market. They are being scaled down by acts of the government in the attempt to conserve vitamin A supplies, which are so necessary. In the near future, if not already, you will find the capsules of vitamins A and D coming to about five thousand units of A per capsule and about five hundred units of D. There will be some with ten thousand units of A and five hundred units of D, which gives an adequate maintenance dose of vitamins A and D for any adult or probably for any growing child.

There are some A and D in the diets as given. Patients are therefore given a little more than necessary to be certain we do not have a deficiency. It is easiest to do it in terms of a single capsule which is not expensive and does give the certainty of adequate diet.

These diets have been inspected and tested as to their adequacy in terms of the B complex and of C, and there is no deficiency which we can demonstrate there. We do not believe that such diets need any amplification with B complex or C, but we do feel they should have it with A, and I still feel certain that even an adult on a reducing diet should have a supply of D.

In conclusion, let me say again that the success which we obtain with patients, on reducing diets is largely in proportion to the conviction which we carry that the dietary control will work. Without dietary control, no successful reducing will be achieved except, of course, by the lazy individual who has just accumulated fat. He does not come to consult the physician about how to reduce. He finds that out from reading the newspapers.

MSMS

The Problem of Alcohol Addiction

Present-Day Therapy*

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The excessive use of alcoholic beverages is a problem that has baffled medical men for centuries and a review of the literature shows much confusion and unsatisfactory progress.

That a very large majority of alcoholic addicts present a picture of vitamin deficiency due to the fact that alcoholic beverages furnish calories, but no vitamins. The administration of large doses of synthetic vitamins B₁, B₂, Niacin, seems to bring about a rapid return to a state of well-being, mentally and physically. A study of one hundred-fifty cases have been gratifying and should be continued. Results from this ambulatory therapy seem as satisfactory as institutional care and will reach many more patients because of the inability of many to pay the cost of the sanitarium therapy.

■ TWENTY-FIVE years ago the student in most northern medical schools was taught that beriberi, scurvy and pellagra were diseases encountered only in the tropics and in some of our southern states. Many people in these southern areas lived on a sub-standard diet due largely to meagre circumstances and faulty dietary habits. Such teaching prompted the student who intended to practice in the northern states to regard the study of these diseases lightly, thinking he would never see them among his patients. For him, these diseases were practically non-existent since he might never be called upon to treat such conditions. Tropical medicine especially the above mentioned diseases, was taught only in southern medical colleges and in the Army and Navy medical schools.

Until recent discoveries of the rôle played by vitamins in our food, the medical schools of the north have been quite indifferent to the incidence of beriberi and pellagra-like manifestations. Considerable change in instruction has taken place as a result of these discoveries. Most physicians

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have become "vitamin conscious" and now recognize these diseases as a consequence of insufficient or improper vitamin intake or utilization.

Several years ago while serving as Medical Director for the Oakland County Emergency Relief Administration we became interested in the problem of alcoholic addiction and in going over the case histories of some one hundred and fifty patients, in the light of recent medical contributions, we discovered a significantly consistent pelagrogenic pattern in their diets. By far the greatest majority of alcoholics gave a history of irregularity in their eating habits and even of abstinence from food for long periods of time. Inhabitants of certain sections of the south became ill from a sustained, improperly balanced diet. Similarly, individuals who subsist largely upon alcoholic beverages fall heir to the same kind of illness, regardless of the region of habitation. Indeed, it would seem to make very little difference whether one patient starved in the south because of an economy of scarcity; or another, an alcoholic, starved in the midst of plenty of food.

Beriberi has been recognized and classified for many years, but few physicians suspected that it would be found among persons where all varieties of foodstuffs were available. However, a beriberi-like picture is presented to us by many alcoholics, particularly, in cases where there has been sustained and heavy drinking over long periods of time. Thus the symptoms described as alcoholic neuritis (neuropathy) has turned out to be early beriberi and the conditions may be relieved promptly by proper vitamin B therapy. That this condition is due to vitamin deficiency (B_1) there can be little doubt. Strange bedfellows, true, but partners nonetheless.

To quote Jolliffe:

"Alcoholic polyneuropathy and beriberi polyneuropathy is unquestionably due to vitamin B_1 (thiamin hydrochloride) deficiency. The onset of a peripheral neuropathy in the alcoholic is preceded by a period of neurasthenia which is the most common manifestation of early vitamin B_1 deficiency. As in the neurasthenia syndromes of any origin, the symptomology is varied but its outstanding symptoms are such complaints as irritability (gas), nausea, constipation, uncomfortable sensation in the abdomen and other parts of the body, depression, backache, headache (usually of the occipital or constricting band type), sighing, palpitation and precordial distress."²

The recognition of these symptoms by physicians caused many of them to administer large doses of vitamin B_1 to their alcoholic patients and was, as a rule, followed by favorable results. That vitamin B_1 therapy alone was not entirely sufficient, however, soon became apparent to us for it did not entirely clear up the symptoms described as "mental fog." "Many presented a picture of utmost confusion, disorientation, insomnia, nervousness (nervous fatigue), despondency and a lapse of memory which is classically similar to the mental picture found in pellagra."⁶

One case history cited by Sutton and Ashworth might serve as typical of many cases:

"During the night of February 10, the patient was found on the hospital grounds clad only in a night-shirt. When examined the next day, he exhibited a severe psychosis. The daily administration of 100 mg. of nicotinic acid intravenously and 400 mg. orally and 8 c.c. of liver extract caused rapid improvement."

The administration of relatively large doses of nicotinic acid hastens the recovery of the patient and is the method now in use by the above quoted writers as well as by Spies, Sydenstricker and Jolliffe. We have likewise employed large doses in treating alcoholic addicts. The administration of large doses of this synthetic vitamin is especially indicated during the first four or five days following the withdrawal of all alcohol with moderate doses of the vitamins continued for two or three months. Unless the alcoholic syndrome is eliminated, we feel that little can be expected in the way of stopping the apparent irresistible craving for alcohol.

"The theory that certain 'alcoholic' diseases result from nutritional deficiencies rather than from the direct toxic action of alcohol meets with little resistance. A vitamin deficiency or inadequacy is the modern explanation of the axiom that heavy drinkers who consume little food are subject to alcoholic diseases while those who eat well, and in whom assimilation is not impaired by gastro-intestinal disorders, seldom develop those diseases. Listed in the order of the weight of evidence in their favor, the following diseases of the alcoholic are now known as vitamin deficiency diseases—alcoholic pellagra, encephalopathy and Wernicke's syndrome (disease). In addition, experimental and clinical findings point toward a nutritional deficiency in Korsakoff psychosis, delirium tremens, acute alcoholic hallucinosis and fatty infiltration and cirrhosis of the liver, but no conclusive evidence has been adduced."²

The work of Alexander¹ on the relation of Wernick's disease to B deficiency is pertinent in this connection. About one year ago we decided to include the pellagra preventive factor (niacin) in the therapy used in all such cases of alcoholic addiction. Spies, in his treatment of pellagra, employs large doses of niacin, both intravenously and orally, giving as much as 1000 mg. daily. We have used various doses according to the severity of the individual case, with a minimum of 100 mg. daily to a maximum of 1000 mg. daily as deemed necessary. The results obtained in our last twenty-five cases seem to justify the continued use of niacin. "Alcoholic pellagra" is the best terminology to use to describe this syndrome. The disappearance of most of the mental symptoms within the short space of twenty-four to forty-eight hours justifies the further use of this synthetic vitamin. One patient very aptly described results from the use of this medication by saying, "The fog has lifted."

The appearance of cheilosis or fissuring of the lips in some patients and the typical symptoms of Ariboflavinosis (eyelids and tongue) caused us to include riboflavin (B_2) in our therapy and, as a consequence, we are now using the following: nicotinic acid, 100-1000 mg.; thiamin hydrochloride (B_1) 3-15 mg. riboflavin (B_2) 3-10 mg. daily in all cases presenting symptoms of chronic alcoholism.

The chronic alcoholic presents two problems for the physician which, while closely related, are really separate entities, namely: the acute symptoms of intoxication, which must be treated effectively if he hopes to get his patient under proper control and the one we have described as the deficiency state referred to as alcoholic beriberi, alcoholic pellagra and ariboflavinosis, which, for want of a better name, we call the alcoholic starvation syndrome. The following description of the therapy used in the acute stages and the reasons for such therapy are presented.

The alcohol addict is alternately subjecting himself to stimulation, or more correctly, to a pseudo-stimulation and depression and if this has been going on for months at a time, the continuation of the drinking of alcoholic beverages becomes many times an absolute necessity, in the mind of the addict at least. As physicians, we have been altogether irrational in our approach to this problem. We have been misled by the intoxicated condition of the patient into believing that all chronic

alcoholics are psychopathic or mental cases. They are usually only mental cases in the sense that pellagrin is a mental case, due to the deficiency vitamin factor and to the state of alcoholic intoxication. Most of these individuals are loud, boisterous and exceedingly profane while under the stimulating or intoxicating stage of their drinking and for this reason some of us have been in the habit of prescribing narcotics or sedatives in the hope of quieting them. The harm done by the administration of depressants or sedatives at this juncture is not so apparent until after the effects of the drugs have begun to wear off, which is at about the same time, as a rule, as the stimulating effects of the alcohol. What we find then is a patient in the throes of a very depressed state, both mental and physical, crying out for relief of his condition. More sedatives merely act as palliatives for a few hours or until the effect wears off, thus further depressing an already greatly depressed and exhausted nervous mechanism. In the end, the patient resorts to self-medication with more alcohol to relieve his suffering. When we prescribe sedatives for patients suffering from the after-effects of excessive alcoholic indulgence, we defeat our purpose, that of relieving the symptoms, which are, depression, despondency, and extreme debility. We have used sedatives in but four or five cases in our last one hundred and fifty cases.

Alcohol when first taken into the body acts as a stimulant or pseudo-stimulant, both physically and mentally but proves later to be a severe depressant. Such a condition has been labeled as the "hangover," quite generally among drinkers. This has been well established and we are confronted with the question as to the best method of treatment for relief of such a person. Many treatments have been tried and none have met with universal adoption as entirely satisfactory. The alcoholic in his desperation resorts to self-medication and takes another drink which he has come to know from past experience will bring some temporary relief from his suffering. If he isn't fully aware of this he can usually secure advice from fellow drinkers who tell him to "Let the same snake bite you that bit you the night before," or some such advice. This does not alleviate the symptoms and as a rule leads to a continuous drinking habit. We believe that many of these patients are merely attempting to restore themselves to normality by such self-med-

ication and do not foresee the deterioration that is inevitable. Self-medication reminds us of the old saying—"He who treats himself has a fool for a patient" and nowhere else could this be better exemplified. Sedatives having a depressing effect on a patient already severely depressed, caused us to search for some other method of relief where stimulation seemed to be indicated. In selecting a stimulant, strychnine seemed to be a logical choice because its action is similar to that of alcohol and especially because of the rapidity with which it acts.⁹ Another drug that has been very largely discarded in favor of digitalis is strophanthus. This drug enjoyed great popularity among physicians many years ago as a rapidly acting heart and muscle stimulant. It has the advantage of quick action and of rapid elimination with no accumulative effects noticeable.⁹ We have used tincture of nux vomica combined with tincture of strophanthus in small repeated hourly doses and the results have warranted its continued use. The doses employed were as follows—tincture of nux vomica, U.S.U. min. IV and tincture of strophanthus U.S.P. min. II, administered in water every hour.

In a great majority of the patients we have had under observation, the desire for liquor has been markedly decreased, with many of them stating that they "Did not feel the need of a drink." We regard such therapy as "substitution therapy" and continue its use for several days after the acute symptoms have subsided. A most gratifying observation is the rapidity with which the patient returns to a more or less normal condition, mentally and physically, and to the fact that institutional care has not been necessary in a large majority of cases. Usually this improvement occurs within twenty-four hours, especially since we have combined intensive vitamin therapy with this stimulation therapy. The only contraindication to the use of strophanthus would be in cases that are digitalized. The drug should not be used until at least seventy-two hours have elapsed after stopping digitalis. Such instances are rare and not often seen among alcoholic addicts. It is well, however, to keep such a possibility in mind.

"In moderate doses strophanthus has the same, but a more marked effect on the heart as digitalis, stimulating the tonic contraction of the cardiac muscle, increasing the force of the ventricular systole, prolonging the diastole, slowing and regulating the rhythm, and caus-

ing a pronounced though slow rise in the arterial pressure by the increased force in the cardiac contractions—there can be no question that it does have the effect of slowing the rate of the heart, apparently the result of direct cardiac action.

"Strophanthus is an efficient diuretic, increasing the quantity of urine not only in instances of cardiac disease, and influence is apparently exerted not by it, but also through direct action upon the secreting structure of the kidneys. Elimination and absorption—since strophanthus is soluble in less than its own weight of water, it gives prompt results. The active principle of strophanthus escaped with the urine, so that we have ready elimination."

"Strychnine by stimulating the vasomotor center, produces constriction of the arteries, thereby causing a rise of blood pressure, which is augmented by the increased peripheral resistance arising from the general activity of the muscle. The pulse is also slowed by the stimulation of the vagus center in the medulla. The action of nux vomica is an admirable stomachic bitter. In the gastric catarrh and morning vomiting of drinkers it is considered of value."

Tincture of nux vomica has a similar effect upon the central nervous system as does alcohol. These drugs combined exert a stimulating effect upon the patient which seems to inhibit the desire for alcohol and alleviate the accompanying "let down" feeling in such cases. The troublesome tachycardia and bradycardia seem to be kept under control and the patient feels more at ease following the administration of these drugs.

We believe that many persons start drinking as a social matter entirely and continue for varying lengths of time depending upon the individual himself, his temperament and environment. As he progresses from the social drinking stage to that of more or less steady drinking, we find that, as a rule, he eats with greater irregularity, bringing upon himself gradually a state of avitaminosis with its attendant nervous manifestations, and when such a state is reached the drinking becomes almost a necessity if he wishes to maintain some semblance of well-being. It is then that he finds himself in the alcoholic addiction stage where vitamin therapy would seem to be necessary to restore him to a normal physiological condition.

After the patient has been restored to a normal physical condition which requires a month or more of observation and treatment we are convinced that he should readjust his social life in such a way as to reduce the chances of reverting to his drinking habits. As a result of this rea-

soning, we have endeavored to persuade our patients to join the movement known as "Alcoholics Anonymous" where they are assisted in keeping from drinking by associating with men who have developed a remarkably simple philosophy in regard to drinking. We feel that these groups contribute greatly to the social rehabilitation of these patients.

The following cases are presented out of a series of seventy-five, treated since beginning the use of massive dosages of synthetic vitamin therapy:

Case 1.—G. F., aged thirty-nine male, white, married, two children, occupation, laboratory technician. He has drunk alcoholic beverages since he was eighteen years old. During prohibition era drank "moonshine" and "home brew." He has had periods of sobriety and would be classified as a periodic drinker with periods of sobriety becoming shorter and fewer as the years go by. The family physician was frequently called to the home to quiet him with morphine and sedatives. He has been taking barbiturates himself to obtain some sleep. He would awaken following taking barbiturates "feeling terrible." Tachycardia was noticed at frequent intervals. Physical examination was essentially negative with the exception of the reddened and smooth tongue with few scattered patches of papillae. He first came to the office on June 14, 1941, presenting a typical picture of the after-effects of alcoholic excess, namely, anorexia, lassitude, despondence, disorientation, with vagueness as to events that transpired within the last few days.

He stated that he had been drinking excessively for several weeks, hadn't been eating regular meals and could not sleep without taking phenobarbital in doses of 3 to 6 grains every night. His wife stated that he had been melancholy, morose and ugly for weeks. He drank from twelve to eighteen bottles of beer daily with an occasional pint of whiskey besides. This patient was given medication as follows: Tr. of nux vomica, M-IV, and Tr. of strophanthus, M-II, in one ounce of water every hour and niacin mg. XXX, thiamin hydrochloride mg. I and riboflavin mg. I, after meals. June 15, 1941, he came to the office stating that he felt better and had eaten fairly well that day. Advised to continue medication and return in twenty-four hours.

June 26, 1941, he returned to the office for more medication at which time the dosage of the synthetic vitamins was reduced to twice per day. Stated he felt better, not so nervous and slept much better. Still working until after midnight trying to catch up on his work. More cheerful and looked much better than at time of first visit. We advised him to take two or three days' rest from work. June 28, 1941, stated that he was completely exhausted when he gets home every night, but he had no desire for a drink of liquor. Slept soundly.

January 30, 1942, he returned to office with a history of having been drunk since New Year's Eve, when he thought one or two drinks would do him no harm. He had been abstinent since June 14, 1941. He was given the same medication as previously described and made an uneventful recovery. Hadn't had anything to drink since. He was advised to attend a meeting of "Alcoholics Anonymous" on February 4, 1942, and is still attending these weekly meetings.

Case 2.—E. M., aged thirty-five, male, white, occupation, truck driver, married, two children, steady drinker for ten years. Eating habits irregular and at times will eat nothing for several days. Apprehensive about death, confused, melancholy, cannot sleep or sit still for any length of time. Constipated, tongue red and smooth with other physical findings essentially negative. Started taking strophanthus and nux vomica with vitamin B-I, niacin and riboflavin T.I.D.

March 30, 1941. Feels and appears better, eats and sleeps well, not as nervous. Doesn't feel like taking a drink of liquor.

April 4, 1941. Contracted an acute upper respiratory infection but didn't feel like taking a drink. Recovered in three days and returned to work. Feels fine with good appetite. Sleeps much better than he did but still a little restless. Bowels regular. Took medications one month. June 20, 1941. Wife came to office reporting that he is working hard and feels good. Restless when over-tired. Still taking vitamin B Elixir in decreased amount. Hasn't taken a drink since March 28, 1941.

October 7, 1941. Wife reports he is feeling well and hasn't taken a drink since March 28, 1941.

April 15, 1942. Hasn't been drinking at all.

We could present numerous case histories but they all confirm to much the same pattern. The lack of proper dietary habits is uniform in all these alcoholics, both as to regularity and selection of foods.

We wish to add the following to what has been said previously in this article and that is—the patient should have a real desire to quit drinking if we are to achieve satisfactory results. There is no magic formula that may be called an "Alcoholic Cure." The entire problem of alcoholic addiction should be treated or considered as a medical problem or physiological problem rather than a psychiatric one. Altogether too much emphasis has been placed upon the psychiatric approach and it would seem that some steps should be taken to provide hospital facilities for these unfortunates other than the jail, insane asylum, or almshouse. The State has a definite interest in the problem of alcoholism and should take a more constructive and realistic attitude toward these patients. The State Liquor Control Commission,

the National Distillers Association and other agencies should do something tangible to rehabilitate these addicts.

Summary

1. Chronic alcoholic addicts have a condition known as beriberi, pellagra, riboflavin deficiency, labelled "alcoholic starvation syndrome."

2. These patients, in addition to nourishing, vitamin rich food, need additional amounts of synthetic vitamins, namely, thiamin hydrochloride, niacin, and riboflavin in relatively large doses.

3. Commercial drug companies do not manufacture a B-complex preparation containing adequate dosage of nicotinic acid. The preparation we have used was compounded locally from synthetic niacin, thiamin chloride and riboflavin.

4. The avitaminosis encountered in alcoholic addicts far overshadows any other factor from a therapeutic standpoint.

5. Stimulation therapy proves more efficacious than sedatives in the acute "hangover" stage of the disease.

6. Alcoholic addicts should be considered as physiological problems, rather than psychiatric problems as has been too often the case in the past.

7. Social readjustment should be attempted as a follow-up course of therapy with psychotherapy being called into play as a follow-up measure only.

8. Institutions other than jails, asylums or almshouses should be established to treat alcoholic addicts.

9. There is no so-called "cure" for alcoholic addiction. The patient must have formed a desire to quit before any treatment has a chance of succeeding.

10. "Alcoholic Anonymous" organizations should be given a chance to reorganize the patient's social life.

References

1. Alexander, Leo: *Amer. Jour. Path.*, 16:61, 1940.
2. Jolliffe, N.: Vitamin deficiency and liver cirrhosis in alcoholism. *Quart. Jour. Studies on Alcohol*, 1:517-557, (December) 1940.
3. Jolliffe, N., Bowan, K. M.; Rosenblum, L. A. and Flin, H. D.: Nicotinic acid deficiency encephalopathy. *Jour. A.M.A.*, 114:307, 1940.
4. May, A. M.: The use of nicotinic acid in vitamin deficiency, psychosis associated with alcoholism. *Med. Record*, 150:124, 1939; also, 150:162, 1939.
5. Spies, Tom D., Bean, W. B. and Stone, R. E.: The treatment of sub-clinical and classic pellagra, *Jour. A.M.A.*, 111:584, 1938.

6. Spies, Sydenstricker, Jolliffe, Cleckley and associates: Various publications and papers appearing during the last five years.
7. Sutton, Don, and Ashworth, John: Effects of estrogen on the utilization of vitamin B complex. *Arch. Int. Med.*, 69:15-22, (Jan.) 1942.
8. Sydenstricker, V. P., and Cleckley, H. M.: The effect of nicotinic acid in stupor, lethargy and various other psychiatric disorders. *Am. Jour. Psychiatry*, 98:83-92, (July) 1941.
9. Wilcox, R. W.: *Materia Medica and Therapeutics*, Philadelphia: The Blakiston Co., 1929.

MSMS

The Radiocurability of Neoplasms*

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The degree of radiosensitivity of neoplasms has played a major role in radiation therapy, a role which may have been overemphasized. Equally important are the radioaccessibility of the neoplasm and its radiolability. Often emphasis of one of this important triumvirate of factors to the neglect of another results in complete failure of the treatment. Radiolability is a term used by the author to designate the patient's tolerance to the therapy and its effect upon both diseased and adjacent tissues. It is concluded that radiosensitivities, determined by means of serial biopsies of irradiated tumors, coordinated with critical studies of the size, location, extension and liabilities of these tumors will yield the only accurate solution to the problem of whether a neoplasm is amenable to treatment by irradiation.

THE question of whether a neoplastic tumor can be destroyed or even influenced by radiation therapy is usually postulated on that particular tumor's radiosensitivity, when as a matter of fact the *radiosensitivity* of neoplasms is only one aspect of a three-dimensional picture. Equally important are the *radioaccessibility* of the neoplasm and what I like to call its "*radiolability*." Each individual neoplasm must be viewed from all three of these aspects; all must be given equal consideration. Emphasis of one to the neglect of another when estimating the efficacy of radiation therapy can and often does result in complete failure of the treatment.

The degree of radiosensitivity of neoplasms is a quality which has played a major rôle in radiation therapy, a rôle which may often have been overemphasized. Radiologists know that

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radiosensitivity and radiocurability are not necessarily parallel. For example, enlarged lymph nodes of lymphatic leukemias disappear under treatment with small doses of x-rays, but frequent recurrences and the appearance of new tumor growths place these neoplasms low in point of curability. Also there are many neoplasms which must be irradiated and observed for a period of days before their degree of sensitivity becomes apparent. In these instances radiosensitivity, as determined by cell study, failed to serve its most useful purpose; that is, as an aid to deciding before treatment what type of radiation therapy will be best.

As a consulting biophysicist I have had the privilege of participating in tumor clinics, both in this country and abroad. Frequently the recommendations of these clinics and the decisions made regarding the treatment of cancer patients appeared to be based entirely on the radiosensitivity of malignant neoplasms. Accessibility and liability were usually left to the judgment of the radiation therapist, which in itself is not objectionable because the therapist should best be able to estimate these factors. However, all members of the clinic should appreciate their significance and importance. Occasionally radiation therapy is withheld from a patient because his neoplasm is supposedly "radioresistant," despite the fact that no other type of therapy is indicated. What is equally serious and what perhaps happens more often is the administration of sublethal doses to neoplasms because they were pronounced "radiosensitive" and therefore assumed to be easy to destroy. Possible cures, or at least palliative treatment allowing indefinite periods of useful living, are thus lost to these patients.

There are two main reasons for the apparent emphasis on the radiosensitivity or radioresistance of neoplasms: First is the misunderstanding of the limitations of radiosensitivity and lack of full appreciation of the significance of other radiological factors. Second is timidity in administering the radical radiation therapy which is often necessary. Individual members of tumor clinics also place different interpretations on the term "radiosensitivity." Pathologists estimate the degree of sensitivity of a tumor to radiation on the basis of neoplastic cell type and growth characteristics, while surgeons and internists are apt to think more of host-tumor rela-

tionships and the concurrent pathological effect which the neoplasm may have had upon the patient. Radiologists, being responsible for the administration of radiation therapy and its biological results, must consider still another factor; namely, the individual doses and total amount of radiation that will be required to destroy the neoplasm. Each of these viewpoints is essential and should be correlated, but to categorize all of them under "radiosensitivity" is objectionable.

Radiosensitivity

Radiosensitivity is the quantitative specification of the penetrating radiations (roentgen rays and radium rays) required to inhibit the growth and functional activity of living matter. Originally the term was used with reference to minute particles of tissue, as the eggs of *Drosophila* flies or of *Ascaris* worms, and to the cells of normal or malignant tissues growing in culture. Absolute units of sensitivity were not established, but cell types were classified in ascending or descending degrees of radiosensitivity. The fact that the cells were isolated affixed the original implications of the term to the cells themselves and by connotation eliminated all reference to environmental influences. This concept of radiosensitivity might be termed the "inherent" radiosensitivity of cells.

Inherent radiosensitivity depends upon type, growth characteristics and the physiochemical structure of cells. The latter has no conclusive experimental proof but has some theoretical support. On the other hand, type and growth characteristics are well-known factors and may be demonstrated both in the research laboratory and in the clinic. Lymphoid cells are probably the most radiosensitive of all cells in the human organism. At the opposite end of the scale are nerve cells. Epithelial cells, especially of the testes, ovaries and salivary glands are in general more radiosensitive than are connective tissue cells.

The growth characteristics of cells, both normal and neoplastic, constitute good criteria for their response to irradiation. Adult cells which do not undergo multiplication, such as brain and muscle cells, are not radiosensitive. Very large doses of radiation are required to destroy them. Red corpuscles in the blood vessels may be exposed to large doses of radiation without destruc-

tion, but if bone marrow is irradiated, the young stem cells are destroyed and anemia occurs. The potential germinating ability of a dormant wheat seed is unaffected by tremendous doses of roentgen rays, while "damp" seeds will not germinate following erythema doses of the rays. Cells in active states of typical or atypical mitosis are radiosensitive.

The radiosensitivity of a neoplasm is the inherent radiosensitivity of its cells only at the time of their origin; that is when a single cell or cells of different types acquired abnormal reproductive and functional characteristics. Very soon thereafter the neoplasm may become a complex structure of many types of cells, some of which may resemble normal tissues. The structure and function of these tissues may be modified by physiological processes of the host. Defensive mechanisms of an inflammatory nature are instigated and the neoplasm may become encapsulated by connective tissue. All of these growth manifestations influence the radiosensitivity of the tumor.

The grading of malignancy by estimation of the proportions of undifferentiated and differentiated cells within a tumor is used as a basis of judging radiosensitivity. Well differentiated neoplastic cells grow slowly; the tumor may contain relatively large amounts of connective tissue. The organism demonstrates abundant defense against this type of growth. The differentiated cells of such a tumor may appear normal, both physically and functionally. These cells are in general not radiosensitive. Undifferentiated cells, on the other hand, are fairly radiosensitive. They grow rapidly and retain embryonal characteristics. The organism is unable to defend itself against this type of growth and little connective tissue is produced.

The relative proportions, therefore, of differentiated and undifferentiated cells within the neoplasm aid in estimating its radiosensitivity. These proportions are not easily determined, however. They vary at different times in the same portion of a neoplasm and are different in different parts of the neoplasm at the same time. The change with time is probably always in the direction of increasing proportion of undifferentiated cells; that is, toward higher degrees of malignancy as time goes on. Histologic grading of malignancy is a rather subjective interpretation and therefore is prone to variations. Also

the morphological examination of biopsy material is not, for the reasons previously stated, a positive means of estimating a neoplasm's radiosensitivity. Perhaps at the present time serial biopsies of selected irradiated tumors are the most reliable method of determining radiosensitivity. Biopsy, however, is recommended for every case of cancer when possible. It provides surprisingly accurate information regarding the nature of tumors and serves a very practical purpose. The information thus obtained has additional academic interest and statistical value.

The type and functional activity of normal tissues around a neoplasm also have an effect upon its apparent radiosensitivity. Highly vascular growths are more radiosensitive than are neoplasms with poor nutritional supply. In fact it may be inferred that tumors which are able to exist in a restricted and opposing environment might also be more able to withstand the attack of outside agents. The rapid "melting away" of a neoplasm undergoing irradiation may not be due so much to the radiosensitivity of the malignant cells and their direct destruction but more to injury of the vascular system of the tumor. The neoplastic cells are actually "starved" to death. This phenomenon partially explains the apparent radioresistance of some tumors following irradiation. The treated tumor lives in a new environment which is less susceptible to irradiation. Badly infected tumors and those associated with other inflammatory processes require, in general, more radiation to inhibit their growth.

Radioaccessibility

The second important factor influencing radio-curability is radioaccessibility. By this is meant the degree of assurance, in clinical estimation, of the extent of the neoplastic involvement and the degree of freedom and accuracy which can be exercised in the physical application of the radiation. If adequate radiation cannot be administered uniformly to the entire neoplastic tissue, then there is little likelihood of cure, regardless of how favorable the other factors may be. The radiation therapist must destroy all neoplastic cells for the same reason that the surgeon must remove all neoplastic cells at the time of surgery.

The extent of neoplastic involvement cannot be determined with complete assurance. Therefore the question of size of x-ray field and volume of

irradiated tissues arises in the treatment of even the most well-defined neoplasms. A good rule is to include normal tissue well beyond the estimated borders of the neoplasm. Every student of cancer knows that some neoplasms are better demarcated than others, and that the degree of demarcation sometimes changes with time. Neoplasms which are non-infiltrative in their growth characteristics are in general better outlined than the infiltrative type.

The non-infiltrative tumor enlarges, centrally or peripherally, by proliferation of neoplastic cells which become encapsulated by fibrous tissue. Thus the tumor tends to remain localized and movable. These tumors are usually spherical in form and are visible and/or palpable. As long as the tumor remains encapsulated its size and extent can be estimated fairly well, but when neoplastic cells break through the capsules and invade surrounding tissues, the tumor becomes fixed and loses all lines of demarcation. Examples of these non-infiltrative neoplasms are Wilm's tumors, hypernephromas, mixed tumors of the parotid gland, malignant adenomas of the thyroid gland and lymphosarcomas.

The infiltrative type of tumor disseminates neoplastic cells into lymph spaces and vessels. In the process normal tissue is destroyed and replaced by neoplastic tissue. This type of neoplasm does not become encapsulated and there is no sharp demarcation from normal structures. Its presence is made known by ulceration and hemorrhage. Carcinomas and melanoblastomas are examples of the infiltrative type of neoplasm. They are relatively not radioaccessible.

Estimation of the extent of neoplasms, whether infiltrative or non-infiltrative in type, is further complicated by local extension and metastasis. The neoplasm may metastasize by way of the lymphatics, either by continuous expansion from the local tumor or by fragmentation and deposition in the nodes. Also fragmentation may be transmitted through the blood stream to remote areas. In either case the radiological problem is complicated first by lack of knowledge of the complete extent of involvement and second, by the need of extensive irradiation.

The freedom and accuracy possible in applying the radiation depends upon the size and location of the tumor. Skin cancers are readily accessible. There is no physical difficulty in directing the radiation to the tumor, and since skin cancers usually are not thick or bulky, uniform irradiation

of the entire tumor mass is assured. On the other hand, lymphosarcoma of the stomach may grow to large dimensions and, being deep-seated, present difficulties in the directing of x-rays and in the administering of uniform doses to all parts of the neoplasm. Such neoplasms are radiosensitive but not radioaccessible. Tumors of the lip and anterior portions of the oral cavity are accessible; those farther back in the oral cavity are less accessible. Early cancer of the cervix uteri which has not invaded neighboring tissues is radioaccessible. Cancer of the corpus uteri is less accessible. In general, neoplasms which can be seen without the aid of special optical instruments, which are sharply demarcated, and which have not metastasized are radioaccessible; the hidden non-distinct types with regional metastases are not radioaccessible.

Radiolability

Finally, the radiocurability of neoplasms is affected by the radiolability of the patient. The treatment of tumors by radiation entails a likelihood of damage to normal organs and vital structures adjacent to the tumor, and thus subjects the patient to varying degrees of undesirable physiologic reactions. If there is danger of severe and permanent damage, and if the patient's health cannot withstand the additional shock of therapy, then the tumor is highly radiolabile. Thus tumors of the liver, kidneys and stomach have high degrees of radiolability. Radiation sufficient to destroy the neoplasm might also destroy the vital functioning of these organs. Moreover, such patients are usually critically ill before therapy is instigated.

Organs not involved by the neoplasm but close to it may also be injured. Irradiation near the eyes may result in loss of vision through production of cataract. This possibility is mentioned frequently and carefully guarded against, although proven cases of radiocataract are rare. Permanent sterilization of the ovaries or of the testes by irradiation of tumors in the pelvis may prove to be a liability not welcomed by the patient. Late strictures of the bowels or of the ureters following radium therapy of gynecologic tumors might be regarded as radiolabilities.

The physical status of cancer patients often will not permit the additional strain on the system incident to radiation therapy. Many are

anemic, cachectic and emaciated. The poor elimination of disintegrated tumor tissue by irradiation adds to the already toxic condition of the ill patient. These are liabilities which may preclude any type of therapy, either palliative or curative.

The relative weights of radiosensitivity, radioaccessibility and radioliability have not been clearly demonstrated. Investigations have not been undertaken primarily to solve this problem. Tables on the cure of different anatomical types of cancer, however, present some interesting confirmations of the importance of these factors. In 1940 Ewing¹ published a comprehensive table of the comparative cure rates for cancers, including reported cases up to 1931. In this table the percentage of cures is listed for each anatomical type regardless of the method of treatment. Treatment included surgery, radiation, and surgery plus radiation all grouped together. This does not preclude reference to the table here because the cure rates for radiation therapy alone probably would present the anatomical types in the same or very nearly the same order in which they appear in Ewing's table.

According to this table, lip and skin cancers show the highest rate of cure for selected cases, the rates being 80 per cent and 70 per cent respectively. This is twice as great as the next highest type. Carcinomas of the lip and of the skin are relatively radioresistant neoplasms, but they are most radioaccessible, and intensive treatment involves very little liability to the patient. Thus in these neoplasms, radioaccessibility is the major factor in their cure. Radioliability is next in importance and radiosensitivity ranks least.

At the very bottom of the cure rate chart are tumors of the pancreas, lungs and esophagus, with cure rates of less than one per cent. Pancreatic, lung and esophageal cancers are probably no more radioresistant than skin cancers. The low rate of cure must therefore result from the fact that they are not accessible and are highly radioliability.

Lymphosarcomas are among the most radiosensitive neoplasms. Yet the cure rate of lymphosarcoma is only 5 per cent. The inference is that these neoplasms are seldom cured by radiation therapy because they are either highly radioliability or highly inaccessible or both. The conclusion is surprising because many lympho-

sarcomas appear as discrete tumors, easily outlined and often easy to irradiate.

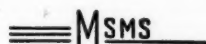
Discussion

It is not the intent of this paper to disparage the attention given to radiosensitivity in the past, but rather it was written in the hope that in the future more attention may be focussed upon other factors which also influence the radiocurability of neoplasms. Comparisons of the radiosensitivity of different types of neoplasms may not provide so much useful information as might come from comparisons of the differential radiosensitivity of neoplasms and their environment; that is, the sensitivity of normal tissues in and around the tumor masses. The differential sensitivity of surrounding normal tissues is used in a few instances to arrive at a prognosis in special cases. For example, in the modified Coutard method of treating carcinoma of the larynx, if the skin over the larynx shows radiation reaction before the appearance of a "radioepithelete" of the mucous membrane of the mouth and throat, then the cancer usually is radioresistant and the prognosis is poor. If the reactions appear in the reverse order, the prognosis is better.

Radiosensitivities, determined by means of serial biopsies of irradiated tumors, coördinated with critical studies of the size, location, extension and liabilities of these tumors will yield the only accurate solution to these problems.

Reference

1. Ewing, James, in Pack, G. T., and Livingstone, E. M.: *Treatment of Cancer and Allied Diseases*, Paul B. Hoeber, New York, 1940, p. 5.



It is good practice to place a felt pad over the common peroneal nerve before applying a skin tight cast—foot drop may be thereby prevented.

* * *

Extreme degrees of bow-leg are easily treated by an osteotomy of the tibia.

* * *

It is advisable to get check-up x-rays seven to ten days after reducing most fractures.

* * *

Acute septic arthritis of the hip may simulate abdominal disease.

EUGENE M. SECORD, M.D., Detroit.

The Treatment of Psoriasis

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From time to time, new fields of research awaken spurts of interest in the etiology and treatment of the age-old, baffling problem of psoriasis but most of these trails soon reach a dead end. Aside from its nuisance value and psychologic handicap to adolescents, psoriasis may cause real concern when the eruption is generalized or when it is associated with disabling complications such as psoriatic arthritis. In this latter condition there is usually a characteristic pattern of involvement and the management is of interest to dermatologists and internists alike. Lacking a cure for psoriasis, we find it important, especially in the widespread and complicated cases, to be able to offer a method of control which is efficient and economical. This is accomplished by the use of the Goeckerman regime which consists largely of inunctions of crude coal tar ointment and ultraviolet irradiation. The details of the technique which assure a favorable response in most instances are elaborated by colored motion pictures.

■ PSORIASIS is one of the most common diseases of the skin and the important points in its natural history are matters of common knowledge.¹⁰ From time to time contributions of research in various fields of laboratory and clinical medicine have thrown light on dermatologic problems but in regard to the etiology of psoriasis we are as much in the dark as ever and its treatment still rests on an empiric basis.

Psoriasis usually begins at the time of puberty and persists with remissions and relapses until early middle life. It is rarely seen in early childhood or in the aged. The condition is a cosmetic disfigurement, a psychologic handicap in the impressionable years of adolescence. In the more severe forms, which may lead to exfoliative dermatitis, there may be actual disability, and in about 15 per cent of the cases there is associated arthritis of a characteristic pattern which often

runs a clinical course of activity that is parallel to the course of the eruption on the skin. There is a hereditary predisposition toward psoriasis; in some instances, numerous members of the same family are involved; in about 25 per cent of the cases there is a record of familial incidence of the disease.

The average patient who has psoriasis appears to be in good general health; in fact, a plethoric constitution is the rule. In some instances there is evidence of lipemia or other disturbance of the metabolism of fats, and whether this is a part of the disease or is coincidental has been the subject of debate for the past decade.⁸ It is generally agreed that a reduction of the caloric intake by obese patients and a reduction in the intake of fat in general is helpful in the management of psoriasis.⁶ Methods have been applied which are designed to assist in the metabolism of fats by the administration of lipocaine⁸ or the saponins of sarsaparilla,⁹ but the value of these procedures is questionable.

The three empiric remedies that long have been associated with the treatment of psoriasis are the administration of arsenic, the use of roentgen therapy and the application of crysarobin to the skin. Each has its disadvantages, and in the case of the first two the hazards and possible sequelae outweigh any temporary benefits that may accrue from their use. A prominent feature of the natural history of psoriasis is that the disease often tends to clear up spontaneously after a period of warm weather, particularly after exposure of the skin to sunlight or artificial ultraviolet irradiation. Since a permanent cure for psoriasis is lacking, in the light of present knowledge, I believe it is desirable to emphasize a method which is effective in controlling the disease in almost every instance in which it is properly carried out. It is my purpose in this paper to call attention to the technique of the combined use of crude coal tar by inunction and of ultraviolet irradiation, a procedure first elaborated by Goeckerman.^{1,2}

This treatment is best carried out with the patient in the hospital or in a rest home, but it can be adapted to ambulatory patients. For the average patient, a period of from two to four weeks is required and no doubt the rest, regularity of routine and the patient's lack of responsibility which are obtained in the hospital are important points in control of the spread of the lesions

*Read at the Seventy-seventh Annual Meeting of the Michigan State Medical Society, at Grand Rapids, September 25, 1942.

and in their resolution. The treatment is not a cure, and there is no assurance against recurrence; the period of remission after treatment varies with the individual patient from months to several years. Except when the disease is present in the most acute forms, the treatment can be applied to all stages of it, even when there is exfoliative dermatitis. As a rule, best results are achieved for those who tan readily and poorest results are obtained for blonds and red-haired persons who burn and do not tan. Treatment is best carried out by means of a full-time program of intensive application to treatment for two to four weeks once or twice a year, rather than use of the method in a desultory manner at bedtime, when it is convenient, now and then, for a long period. A combination of the use of the tar ointment and the ultraviolet light is more effective than the use of either procedure by itself. There is evidence which indicates that a change is produced in the tar by ultraviolet irradiation,⁵ and perhaps this altered substance is responsible for the therapeutic effect obtained. It is advisable to use the tar ointment over wide surfaces of the body before irradiation, even when the patches of psoriasis are limited to a few isolated points; better results are obtained by such a technique than when the patches alone are treated.

Such treatment exerts no direct effect on psoriasis of the nails, for which condition other measures can be employed, but often there is noted an improvement in the affected nails several months after the skin has been cleared by this method of treatment. The tar cannot be applied very well in general to the scalp, excepting where the hair is thin, but it can be incorporated into olive oil after it first has been dissolved in a small amount of benzol.

If the technique of treatment is carried out with attention to details, beneficial results occur with few exceptions. Response to treatment is slow among those who do not tan well, those who have severe involvement of the scalp and nails, those who have heavy lesions of the palms and soles, those who have exceedingly infiltrated plaques and those whose skin has been tanned recently by exposure to sun or ultraviolet light without influence on the lesions. Supplemental procedures to treatment include the injection of whole blood, restriction of the amount of fat in the diet and, occasionally, the administration of large

doses of vitamin D, especially when the involvement is universal or when psoriatic arthropathy is present. The latter condition will be discussed herein in detail later.

Technique of Treatment.—White's crude coal tar ointment in a strength of from 2 to 6 per cent is used generally, excepting on the scalp and nails, where an ointment containing from 10 to 20 per cent ammoniated mercury is used. To the latter ointment 5 to 10 per cent salicylic acid may be added if there is heavy scaling of the scalp. The addition of salicylic acid to the tar ointment is not feasible because it interferes with penetration of the ultraviolet light.

Upon admission, the patient is thoroughly bathed with soap and water to soften and facilitate removal of the scales from the affected parts. The trunk and extremities are thoroughly anointed with the tar ointment after the bath, and suitable clothing is provided, such as loosely fitted underwear, pajamas or a fashioned covering of gauze. At bedtime additional ointment is applied to the body and scalp where needed.

The next morning the tar ointment is smoothed with an oil, such as olive oil or cotton seed oil, to the consistency of a thin film over the entire body. At this stage irradiation with ultraviolet light is carried out daily in increasing dosages, according to the patient's tolerance, while at each irradiation a thin film of the tar ointment remains on the skin. The amount of exposure depends on the voltage of the lamp, the age of the burner and the reactivity of the patient's skin. It is desirable to secure a brisk erythema short of an uncomfortable burn. Infiltrated plaques and the scalp may be subjected to more intensive treatment by protection of the surrounding skin by paper or cloth, but it is essential to irradiate the entire surface of the body.

After the ultraviolet treatment, a bath and shampoo again are in order and the ointments are reapplied. In the case of ambulatory patients, inunction can be deferred until bedtime.

Psoriatic Arthritis.—It is becoming increasingly apparent that a considerable proportion of psoriatic persons also are subject to involvement by a form of arthritis which has a characteristic pattern and a clinical course (at least in the early stages) which parallels the degree of activity of the lesions on the skin.⁴ The association is more than a coincidence. In affected persons psoriasis usually, but not always, has been present for months or years before the onset of the arthritis. The most common site of involvement in the early stages is the terminal phalanges of the fingers or toes; gradually the larger joints may become involved, even the spinal column, and when the disease is advanced, the picture may resemble that of arthritis deformans. The earliest

changes usually appear as red, tender swellings of the soft tissues around the smallest joints of the fingers and toes. One joint may be affected or there may be multiple sites of involvement. If the psoriasis subsides spontaneously or under treatment, there is often complete remission of the symptoms in the joints, but with succeeding episodes of involvement, more and more permanent changes become evident. The degree of severity of lesions in the skin does not always correspond to the severity of the arthritis. As changes in the bones and surfaces of the joints first become demonstrable in roentgenograms, they appear to be nonspecific, resembling those of rheumatoid arthritis except that in the latter condition the terminal joints of the fingers and toes are rarely affected. In cases of longstanding psoriatic arthritis where there have been numerous bouts of psoriasis and arthritis and where permanent damage has been done, destruction of the articular surfaces and dissolution of the terminal portion of the phalanx which is proximal to the affected joint occur. This effect has been labeled variously "ball and socket," "whittling" or "pencil" and is highly characteristic of psoriatic arthritis.

Technique of Treatment.—The treatment of psoriatic arthritis depends on prompt recognition of it and thorough control of the psoriasis, and in this latter respect the use of the program previously elaborated herein, in which crude coal tar and ultraviolet light are employed, is particularly valuable. The affected joints are treated as in other forms of arthritis, chiefly to minimize deformity; the application of heat in various forms, including contrast baths, and the prescription of corrective exercises and measures designed to prevent trauma, are distinctly helpful. The affected joints must be supported properly and when flare-ups occur a period of rest is essential.

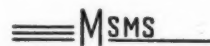
From the standpoint of the patient's general health, it is wise to bring into play all the auxiliary forces that might produce benefit, such as rearrangement of the diet in cases of obesity or malnutrition and thorough elimination of foci of infection. Nonspecific treatment which provokes fever, such as hot baths, hyperthermy or the injection of foreign protein, is useful. Sunbathing is recommended strongly, and often a change of environment is beneficial, especially if change is made to a sunny, dry and equable climate.

Roentgen therapy is practicable when there is early involvement of the joints of the hands and feet. The technique has been described by Popp and Addington,⁷ who elaborated the procedure commonly used for the treatment of psoriasis of the nails. Instead of applying unfiltered roentgen rays to the regions of the nails alone, these authors emphasized the exposure of the whole

hand or foot to rays generated at approximately 130 kilovolts (constant potential), filtered through 4 mm. of aluminum for the hand and 6 mm. of aluminum for the foot. The dose for each treatment is about 300 r measured in air. The procedure is repeated twice at monthly intervals as needed, to a maximum of three treatments. By this technique marked symptomatic relief often is secured when the changes in the joints are not too advanced but at least three months must be allowed to elapse before the results can be evaluated. Roentgen therapy by no means is recommended as a cure for either psoriasis of the nails or for psoriatic arthritis, and since the natural course of the disease is toward recurrence and progression, the beneficial effect of the treatment on these complications may be at best only temporary. The same precautions that are needed in the treatment of cutaneous lesions by roentgen therapy must be employed in the treatment of psoriatic arthritis.

References

1. Goeckerman, W. H.: The treatment of psoriasis. *Northwest Med.*, 24:229-231, (May) 1925.
2. Goeckerman, W. H.: Treatment of psoriasis, continued observations on the use of crude coal tar and ultraviolet light. *Arch. Dermat. and Syph.*, 24:446-450, (Sept.) 1931.
3. Grütz, O., and Bürger, M.: Die psoriasis als Stoffwechselsproblem. *Klin. Wchnsch.*, 12:373-379, (Mar.) 1933.
4. Hench, P. S.: Acute and chronic arthritis. In Ghormley, R. K.: *Orthopedic surgery*, pp. 108-190. New York: Thomas Nelson & Sons, 1938.
5. Herrick, J. F., and Sheard, Charles: Effects of irradiation of crude coal tar by quartz mercury vapor lamps. I. Evidence of chemical changes as shown by changes in absorption spectra. *Proc. Soc. Exper. Biol. and Med.*, 26:33-40, (Oct.) 1928.
6. Madden, J. F.: Cholesterol balance and low fat diet in psoriasis. *Arch. Dermat. and Syph.*, 39:268-277, (Feb.) 1939.
7. Popp, W. C., and Addington, E. A.: Roentgen therapy for psoriasis of the nails and psoriatic arthritis. *Radiology*, 36:98-99, (Jan.) 1941.
8. Stewart, C. D., Clark, D. E., Dragstedt, L. R., and Becker, S. W.: The experimental use of lipocain in the treatment of psoriasis. *Jour. Invest. Dermat.*, 2:219-230, (Aug.) 1939.
9. Thurmon, F. M.: The treatment of psoriasis with a sarsaparilla compound. *New England Jour. Med.*, 227:128-133, (July 23) 1942.
10. Wise, Fred and Sulzberger, M. B.: Psoriasis and its treatment. The 1940 yearbook of dermatology and syphilology, pp. 1-60. Chicago, The Yearbook Publishers, Inc., 1940.



A letter from the Office of Censorship in Washington requests state medical journals and bulletins of county medical societies to remember that it is exceedingly inadvisable to publish uncensored letters coming from doctors in the service, particularly when they include the addresses of the physicians. Already in several instances such letters have served to reveal the identity of troops overseas. The Code of Wartime Practices for the American Press calls attention to the great danger that is inherent in this practice.

All publications are particularly requested to avoid identification of soldiers with their troop units when they are overseas, about to embark or on defense (as distinguished from training) activities in the United States. In the case of Naval personnel the identification of ships and bases is to be especially avoided. Editors of all publications will, we are sure, do their utmost to cooperate with the Office of Censorship in Washington, since the revealing of units to which physicians are attached may be of great value to the enemy in determining the character of the armed force with which it has to deal. When in doubt, editors will do well to get a direct response from the Office of Censorship regarding the release of any special item.—J.A.M.A., June 17, 1943.

Obstetrics in Michigan in Wartime

Most of Michigan's younger physicians, as well as many well-trained younger obstetricians, have entered the armed services of our country. This fact, in the face of a rapidly increasing birth rate, has thrown an additional medical service load upon older obstetricians and general practitioners of medicine. Many of the latter had ceased to serve obstetrical patients but have now returned to this work.

How have these changes affected our maternal and infant mortality rates? In 1940, the maternal death rate was 2.95 in each 1,000 deliveries and the infant mortality rate was 40.53 per 1,000. In 1941, the maternal death rate increased slightly to 2.97, but the infant mortality rate fell to 38.75. During the year 1942 there were 124,081 births in Michigan—a marked increase—but both the maternal and infant mortality rates fell: the maternal deaths to 2.06 and the infant rate to 37.07.

To summarize: In spite of fewer Doctors of Medicine and trained obstetricians and with greatly increased demand for obstetrical services, our doctors have delivered Michigan mothers and in doing so have saved more lives than in pre-war days.

Today a bureau of the federal government proposes to offer obstetrical service to the wives of certain groups of service men. The amount of service under this plan is limited and the fees for obstetrical care are set. Most of the Doctors of Medicine in Michigan have had an opportunity to examine this federal plan and to evaluate it. The questions most commonly asked are:

- Is there a need for this service?
- Will this plan disrupt the present physician-patient relationship?
- Will the morale of our fighting men be improved by knowing that the federal government will supply medical service to their wives?
- Is this an encroachment upon the practice of medicine?
- Is it an opening wedge for the federal government and the state departments of health to direct all medical activities?
- Should the State Society condemn those members for accepting the proposed obstetrical plan who find the fee set under the plan approaching or equal to their usual fees for obstetrical care?
- Should Michigan Doctors of Medicine render the service without charge to these obstetrical patients as a patriotic duty?
- Will the medical profession of Michigan be stamped as unpatriotic if it refuses to cooperate with this proposed service?
- Finally, will the splendid record of maternal and fetal health which has been established during wartime under severe handicaps be maintained?

Each Doctor of Medicine in Michigan is placed in the position where he must consider these questions, thereby arriving at an answer which will be satisfactory to his Society, his conscience and his country.

V. H. Cummings

President, Michigan State Medical Society



President's



Page



✱ EDITORIAL ✱

A CHANGED POSTWAR WORLD

■ Britain produced the Beveridge plan of post-war life which represents the thought and evidently the desires of the Administration. The Parliament did not see eye to eye, and has side-tracked it.

America has her Delano plan, the deliberated conclusions of the National Resources Planning Board, approved and sent to the Congress by the President. If you have not read this you should review it (House Document 128). It is a plan of life and government, and has very definite proposals regarding health, nutrition, education, and medical care. These are not all entirely new. "Since 1936 the Federal Government, through grants in aid, has been coöperating with the state health agencies in extending and improving maternal and child health services and with state crippled children's agencies in providing service for the physiological restoration of crippled children." (H.D. 128, Pt. 1, page 62.)

There is a pattern to which we are to be fitted, if we read correctly, and this pattern is not to our liking. Every new glimpse we get points to the same ultimate end.

Read the Delano plan (*italics ours*):

"The problems presented by the financial obstacles to the assurance of adequate medical care for all is one of the most important in the entire field of public health. Its solution will call for the closest coöperation between the medical profession and government. It will require, too, the courage to face economic realities *and to explore not only the potentialities of expansion of publically provided medical care but also the feasibility of methods such as social insurance which have operated successfully elsewhere.*" (page 65)

"The nation must satisfy itself that the total numbers of medical personnel after the war will be adequate for the expanded health services that are indicated. And steps must be taken to see that *medical personnel are distributed over the country more nearly in proportion to need.*"

"Communities will have to explore *new methods of providing medical care* and devices for making the most economical and effective use of such facilities and personnel as are available. These gains must not be abandoned after the war. For here as elsewhere the war has merely thrown into high relief the extent of our peacetime failure to solve basic problems." (page 66)

Within the month we in Michigan and in fact all other states have had another example of government "coöperation." The Children's Bureau has put the profession of medicine behind the 8-ball. The Bureau sent announcements to the Army camps that the wives and infants of men in the armed forces of the fourth to seventh classes may have without cost maternal and infant care. This is without regard to financial need; only fill out certain blanks. This plan was announced before adequate time to study it was accorded the medical profession. Calls came pouring in for the service before many of the doctors had ever heard of the plan.

It is time the profession did some real thinking as to how we will practice, the circumstances under which it will be done, and even whether it will be a free and unchained body. No group has greater potential ability to think clearly, or see through a maze. The profession has both the education and the training, and during the ages has produced some of the world's most outstanding leaders.

The *Journal of the American Medical Association* of May 1, 1943, says editorially:

"The mark of intelligent man as contrasted with the higher apes is ability to plan for the future. On the medical profession primarily rests the obligation for much of the active work of reconstruction and rehabilitation of the postwar world. For such work the medical profession must begin to prepare now. Intelligent man does not repeat the mistakes of the past. Surely we would be unintelligent if we did not do everything in our power to meet our obligations so that the world would not again be faced by the disaster and catastrophe that followed World War I."

But why does that same editorial end:

"Certainly the time is not too soon to suggest that the government of the United States establish as soon as possible a mechanism for giving to these questions the analysis and consideration that they deserve and for suggesting the steps that may be followed under a democratic government for their solution."?

Do we find the industrialists asking the government to plan their future for them? Decidedly not! Industry is busily engaged in plan-

ning its own future. It will make its own decisions. Does not our experience and the observation of what is going on about us now, indicate that the last thing we want is for some bureaucrat to do our thinking and our planning? Think it over.

THE BIDDLE ORATION

■ The Biddle Oration was established in 1935 to honor one of our most outstanding and lovable members, Andrew P. Biddle, M.D. He was secretary of the Michigan State Medical Society in 1902 when the Society was reorganized and THE JOURNAL established. He became the first editor and served four years. He was president in 1916-18, the only man ever elected to succeed himself as president. Dr. Biddle was trained at Annapolis, but retired from Naval life to study medicine, and has practiced in Detroit fifty-seven years.

Dr. Biddle suggested that the name of the "Biddle Oration" be changed in favor of some other doctor whom the Society wishes to honor. The committee has considered this suggestion for over a year and has decided to make the suggested change. Next year it will be "The Theodore A. McGraw Lecture."

Another of our members who has been very active in public affairs and generous in his post-graduate medical efforts has made provision for an honorarium for the essayists on this program for ten years. He wishes his name kept anonymous, but the Society hereby gives him our testimony of appreciation. It is a grand gesture and will bring untold benefits.

Communication

Editor, Journal MSMS
Michigan State Medical Society
Lansing, Michigan

Dear Doctor:

We want to call your attention to an error in your article, entitled, "Women Doctors Commissioned," on page 378 of your May issue. On good authority we understand that the only woman physician from Michigan at the time of the first World War who served overseas was your good friend, Dr. Marie B. Coolidge of Detroit. Bertha Davis apparently came in from some other state since then.

Dr. Coolidge enlisted directly in the Army but because women at that time were not militarized, at the suggestion of the Federal Government, she served under the American Red Cross. She served in seven offensives and the day the armistice was signed the government sent her back to this country, and she lectured in the seventh and eleventh Victory Loan Districts.

Will you kindly see that justice is done?

Best regards.

Very truly yours,

J. A. BECHTEL
Executive Secretary
Wayne County Medical Society

NOTE: The editor did not know of Dr. Coolidge's service, and is glad to acknowledge it. Dr. Davis did not come in later from another state. She graduated from University of Michigan, 1904, and was practicing in Lansing when called to service. It is Clara M., though, instead of Sister Bertha (editor's mistake), and she is now at Winnetka, Illinois. This information about Dr. Davis comes partly from the Victory number of THE JOURNAL, May, 1919, where she had a full-page picture. We are unable to find Dr. Coolidge in that number, hence our lapse for which we apologize.

THE OLD DOCTOR

By Edgar A. Guest

The old-time family doctor now is back with us once more.
As majors and as captains all the young have gone to war
And the doctor, long past fifty, is on duty night and day
Taking care of all us patients in his good old-fashioned way.

There is something in his manner reassuring to the sick.
Is it age or is it wisdom? Is it just a doctor trick?
But his speech has comfort in it and it's good to hear him tell
If we'll carry out his orders we will pretty soon be well.

The little grip he carries shows the signs of wear and tear.
Like the doctor it has labored long, through weather foul and fair,
And the same things still are in it. All the remedies of old,
The pink or crimson tablets good for breaking up a cold.

The young and modern doctors now are working land and sea.
For our forces who are fighting in the cause of liberty;
And until the war is ended, here at home I'm very sure
The old-time family doctor every ill that comes will cure.

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—The 78th Annual Meeting—

DELEGATES TO MSMS HOUSE OF DELEGATES

(Names of Alternates Appear in Italics)

P. L. LEDWIDGE, M.D.

Detroit, Speaker

G. HOWARD SOUTHWICK, M.D.

Grand Rapids, Vice Speaker

L. FERNALD FOSTER, M.D.

Bay City, Secretary

COL. HENRY R. CARSTENS, M.C.

Immediate Past President

Allegan

R. J. Walker, M.D., Saugatuck

H. H. Johnson, M.D., Allegan

Alpena-Alcona-Presque Isle

William E. Nesbitt, M.D., Alpena

F. J. O'Donnell, M.D., Alpena

Barry

C. A. E. Lund, M.D., Middleville

C. P. Lathrop, M.D., Hastings

Bay-Arenac-Iosco

C. L. Hess, M.D., Bay City

Fred Drummond, M.D., KawKawlin

J. H. McEwen, M.D., Bay City

R. N. Sherman, M.D., Bay City

Berrien

D. W. Thorup, M.D., Benton Harbor

Dave Bleismer, M.D., St. Joseph

Branch

Robert L. Wade, M.D., Coldwater

Samuel Schultz, M.D., Coldwater

Calhoun

A. T. Hafford, M.D., Albion

C. S. Gorsline, M.D., Battle Creek

A. A. Humphrey, M.D., Battle Creek

G. W. Slagle, M.D., Battle Creek

Cass

S. L. Loupee, M.D., Dowagiac

G. S. Green, M.D., Dowagiac

Chippewa-Mackinac

E. S. Rhind, M.D., St. Ignace

I. V. Yale, M.D., Sault Ste. Marie

Clinton

W. B. McWilliams, M.D., Maple Rapids

F. E. Luton, M.D., St. Johns

Delta-Schoolcraft

J. J. Walch, M.D., Escanaba

A. H. Miller, M.D., Escanaba

Dickinson-Iron

W. H. Alexander, M.D., Iron Mountain

L. E. Irvine, M.D., Iron River

Eaton

Don V. Hargrave, M.D., Eaton Rapids

Paul Engle, M.D., Olivet

Genesee

F. E. Reeder, M.D., Flint

Henry Cook, M.D., Flint

R. Scott, M.D., Flint

D. R. Brasie, M.D., Flint

J. T. Connell, M.D., Flint

Don Wright, M.D., Flint

M. S. Chambers, M.D., Flint

A. D. Kirk, M.D., Flint

Goebic

W. E. Tew, M.D., Bessemer

Grand Traverse-Leelanau-Benzie

Ben B. Bushong, M.D., Traverse City

J. G. Zimmerman, M.D., Traverse City (in service)

Gratiot-Isabella-Clare

M. G. Becker, M.D., Edmore

(No alternate)

Hillsdale

L. W. Day, M.D., Jonesville

O. G. McFarland, M.D., North Adams

Houghton-Baraga-Keweenaw

I. D. Stern, M.D., Houghton

Alfred LaBine, M.D., Houghton

Huron

C. W. Oakes, M.D., Harbor Beach

C. I. Herrington, M.D., Bad Axe

Ingham

Robert Breakey, M.D., Lansing

Harold Wiley, M.D., Lansing

John Wetzel, M.D., Lansing

Milton Shaw, M.D., Lansing

Ionia-Montcalm

W. L. Bird, M.D., Greenville

J. J. Johns, M.D., Ionia

Jackson

J. J. O'Meara, M.D., Jackson

H. A. Brown, M.D., Jackson

C. S. Clarke, M.D., Jackson

C. R. Dangler, M.D., Jackson

Kalamazoo

L. W. Gerstner, M.D., Kalamazoo

R. J. Armstrong, M.D., Kalamazoo

John Littig, M.D., Kalamazoo

Sherman Gregg, M.D., Kalamazoo

Kent

A. V. Wenger, M.D., Grand Rapids

C. F. Snap, M.D., Grand Rapids

R. H. Denham, M.D., Grand Rapids

George Southwick, M.D., Grand Rapids

A. B. Smith, M.D., Grand Rapids

George L. Riley, M.D., Grand Rapids

James S. Brotherhood, M.D., Grand Rapids

Daniel DeVries, M.D., Grand Rapids

Donald Chandler, M.D., Grand Rapids

Paul Bloxsom, M.D., Grand Rapids

Lapeer

D. J. O'Brien, M.D., Lapeer

H. M. Best, M.D., Lapeer

Lenawee

E. T. Morden, M.D., Adrian

L. J. Stafford, M.D., Adrian

THE 78th ANNUAL MEETING

Livingston

Hollis L. Sigler, M.D., Howell
E. D. Finch, M.D., Howell

Luce

Henry E. Perry, M.D., Newberry
R. E. Spinks, M.D., Newberry

Macomb

D. B. Wiley, M.D., Utica
A. B. Bower, M.D., Armada

Manistee

E. A. Oakes, M.D., Manistee
E. B. Miller, M.D., Manistee

Marquette-Alger

V. Vandeventer, M.D., Ishpeming
R. A. Burke, M.D., Palmer

Mason

W. S. Martin, M.D., Ludington
C. A. Paukstis, M.D., Ludington

Mecosta-Osceola-Lake

Thomas P. Treynor, M.D., Big Rapids
Jacob Bruggema, M.D., Evart

Medical Society of North Central Counties

Richard Peckham, M.D., Gaylord
C. G. Clippert, M.D., Grayling

Menominee

H. T. Sethney, M.D., Menominee
W. S. Jones, M.D., Menominee

Midland

Harold H. Gay, M.D., Midland
Irvin Howe, M.D., Midland

Monroe

D. C. Denman, M.D., Monroe
(Elected for two years in 1941; now in service.)
W. J. Geulhouse, M.D., Monroe

Muskegon

Ernest N. D'Alcorn, M.D., Muskegon
Harold D. Dykhuisen, M.D., Muskegon
Leland E. Holly, M.D., Muskegon
Henry J. Pyle, M.D., Muskegon

Newaygo

H. R. Moore, M.D., Newaygo
W. H. Barnum, M.D., Fremont

Northern Michigan

F. C. Mayne, M.D., Cheboygan
Wesley H. Mast, M.D., Petoskey

Oakland

Robert Baker, M.D., Pontiac
Palmer Sutton, M.D., Royal Oak
Harold Roehm, M.D., Birmingham
A. D. Riker, M.D., Pontiac
Z. R. Aschenbrenner, M.D., Farmington
C. T. Ekelund, M.D., Pontiac

Oceana

Merle G. Wood, M.D., Hart
(No alternate)

Ontonagon

W. F. Strong, M.D., Ontonagon
H. B. Hogue, M.D., Ewen

Ottawa

A. E. Stickley, M.D., Coopersville
G. J. Kemme, M.D., Allendale

Saginaw

Clarence E. Toshach, M.D., Saginaw
Lloyd C. Harvie, M.D., Saginaw
(None elected)

Sanilac

R. K. Hart, M.D., Croswell
N. J. Ellis, M.D., Croswell

Shiawassee

I. W. Greene, M.D., Owosso
H. A. Hume, M.D., Owosso

St. Clair

George Waters, M.D., Port Huron
W. A. Schaefer, M.D., Port Huron

St. Joseph

R. A. Springer, M.D., Centerville

Tuscola

Lt. T. E. Hoffman (U. S. Navy)
R. R. Cook, M.D., Akron

Van Buren

Wm. R. Young, M.D., Lawton
William Bope, M.D., Decatur

Washtenaw

Dean W. Myers, M.D., Ann Arbor
William Brace, M.D., Ann Arbor
Hugh Beebe, M.D., Ann Arbor
John Wessinger, M.D., Ann Arbor
Leo A. Knoll, M.D., Ann Arbor
John S. DeTar, M.D., Milan
H. B. Britton, M.D., Ypsilanti
Mathew Soller, M.D., Ypsilanti

Wayne

W. D. Barrett, M.D., Detroit
R. L. Novy, M.D., Detroit
J. M. Robb, M.D., Detroit
A. E. Catherwood, M.D., Detroit
C. D. Brooks, M.D., Detroit
R. C. Jamieson, M.D., Detroit
G. L. McClellan, M.D., Detroit
Wm. J. Stapleton, M.D., Detroit
W. B. Cooksey, M.D., Detroit
C. E. Simpson, M.D., Detroit
T. K. Gruber, M.D., Detroit
C. E. Dutchess, M.D., Detroit
Harry F. Dibble, M.D., Detroit
Henry A. Luce, M.D., Detroit
Charles S. Kennedy, M.D., Detroit
F. G. Buesser, M.D., Detroit
L. W. Hull, M.D., Detroit
L. J. Hirschman, M.D., Detroit
H. W. Plaggemeyer, M.D., Detroit
C. F. Brunk, M.D., Detroit
R. V. Walker, M.D., Detroit
D. C. Beaver, M.D., Detroit
J. H. Andries, M.D., Detroit
E. R. Witwer, M.D., Detroit
Allan McDonald, M.D., Detroit
Earl G. Krieg, M.D., Detroit
W. B. Harm, M.D., Detroit
L. J. Morand, M.D., Detroit
S. W. Insley, M.D., Detroit
A. F. Jennings, M.D., Detroit
M. A. Darling, M.D., Detroit
Volney N. Butler, M.D., Detroit
Ira G. Downer, M.D., Detroit
Wm. S. Reveno, M.D., Detroit
Bruce H. Douglas, M.D., Detroit
L. J. Bailey, M.D., Detroit
Wm. N. Braley, M.D., Detroit

C. K. Halsey, M.D., Detroit
 Wm. S. Gonne, M.D., Detroit
 Frank A. Weiser, M.D., Detroit
 J. A. Kasper, M.D., Detroit
 John H. Law, M.D., Detroit
 Bruce C. Lockwood, M.D., Detroit
 James H. Dempster, M.D., Detroit
 L. T. Henderson, M.D., Detroit
 Wm. P. Chester, M.D., Detroit
 Arch Walls, M.D., Detroit
 L. O. Geib, M.D., Detroit
 Wm. H. Honor, M.D., Detroit
 L. J. Gariepy, M.D., Detroit
 B. L. Connelly, M.D., Detroit
 F. W. Hartman, M.D., Detroit
 Harry L. Clark, M.D., Detroit
 H. P. Cushman, M.D., Detroit
 George B. Hoops, M.D., Detroit
 Harry A. Pearse, M.D., Detroit
 R. C. Connelly, M.D., Detroit
 E. M. Vardon, M.D., Detroit
 Charles J. Barone, M.D., Detroit
 Harold E. Clark, M.D., Detroit
 C. S. Ratigan, M.D., Detroit
 James E. Cole, M.D., Detroit
 A. V. Forrester, M.D., Detroit
 L. J. Foster, M.D., Detroit
 M. H. Hoffmann, M.D., Detroit
 A. H. Whittaker, M.D., Detroit
 Edward D. King, M.D., Detroit
 Wm. P. Woodworth, M.D., Detroit
 James J. Lightbody, M.D., Detroit
 David I. Sugar, M.D., Detroit
 W. A. Chipman, M.D., Detroit
 S. A. Flaherty, M.D., Detroit
 Wm. Hamilton, M.D., Detroit
 G. M. Byington, M.D., Detroit
 C. D. Moll, M.D., Detroit
 H. L. Morris, M.D., Detroit
 B. I. Johnstone, M.D., Detroit
 B. H. Priborsky, M.D., Detroit
 L. W. Shaffer, M.D., Detroit
 R. A. C. Wollenberg, M.D., Detroit

Wexford-Missaukee

W. J. Smith, M.D., Cadillac
 J. F. Gruber, M.D., Cadillac

**CONSTITUTION-BY-LAWS' CHANGES
 CONCERNING DELEGATES**

The 1942 MSMS House of Delegates amended Article 4, Section 3 of the Constitution to include the immediate past-president of the State Society as a member at large of the House of Delegates, with the right to vote and hold office. In addition, all past-presidents now have a right to the floor in the House of Delegates accorded to a regular Delegate, but not the right to vote.

In the By-laws, Section 2 was changed so that a member must be either an active member—or a Member Emeritus—of the State Society for at least two years preceding election as Delegate.

Section 3 was changed as follows: "Any Delegate-elect not present to be seated at the hour of call of the first session may be replaced by an accredited Alternate next on the list as certified by the Secretary of the County Medical Society involved."

Finally, Section 7(n) was amended so that all resolutions introduced into the House shall be in triplicate (not duplicate).

HOUSE OF DELEGATES, 1943

REFERENCE COMMITTEES

On Credentials

J. J. O'Meara, M.D., **Chairman**
 Hollis L. Sigler, M.D. Lloyd C. Harvie, M.D.
 Earl G. Krieg, M.D. L. J. Bailey, M.D.

On Officers' Reports

Parlor C, Ballroom Floor

R. A. Springer, M.D., **Chairman**
 L. J. Hirschman, M.D. R. D. Scott, M.D.
 R. K. Hart, M.D. L. J. Morand, M.D.

On Reports of the Council

Judge Woodward Room (North End)

E. R. Witwer, M.D., **Chairman**
 Carl F. Snapp, M.D. William J. Stapleton, Jr., M.D.
 L. W. Hull, M.D. E. A. Oakes, M.D.

On Reports of Standing Committees

Parlor D, Ballroom Floor

J. J. Walch, M.D., **Chairman**
 W. B. Cooksey, M.D. Roger V. Walker, M.D.
 C. W. Oakes, M.D. Donald C. Beaver, M.D.
 L. W. Day, M.D. W. H. Alexander

On Reports of Special Committees

Parlor E, Ballroom Floor

C. E. Simpson, M.D., **Chairman**
 Ernest N. D'Alcorn, M.D. Harold R. Roehm, M.D.
 W. B. McWilliams, M.D. Robert C. Jamieson, M.D.
 Volney Butler, M.D. Esli T. Morden, M.D.

On Amendments to Constitution and By-Laws

Judge Woodward Room (South End)

C. L. Hess, M.D., **Chairman**
 John A. Wessinger, M.D. A. F. Jennings, M.D.
 Charles E. Dutches, M.D. A. V. Wenger, M.D.

On Resolutions

Parlor F, Ballroom Floor

S. W. Insley, M.D., **Chairman**
 Robert S. Breakey, M.D. G. L. McClellan, M.D.
 W. B. Harm, M.D. Robert H. Baker, M.D.
 D. R. Brasie, M.D. J. M. Robb, M.D.
 S. L. Loupee, M.D. William S. Reveno, M.D.

**Reference Committee reports are to be submitted to
 The House of Delegates in TRIPLICATE**

**TWO-DAY SESSION OF
 HOUSE OF DELEGATES**

The 1943 House of Delegates of the Michigan State Medical Society will hold a two-day session, beginning Monday, September 20, 8:00 p.m. The business of the House will be transacted in the Ballroom of the Statler Hotel, Detroit.

The House will meet Tuesday, September 21 at 10:00 A.M. and at 8:00 P.M. The intervals between meetings of the House of Delegates have been spaced to permit the reference committees ample time to transact all business referred to them.

Such additional meetings as may be necessary will be held Wednesday, September 22, beginning at 10:00 A.M.

Committee Reports

ANNUAL REPORT OF MEDICO-LEGAL COMMITTEE, 1942-43

The activities of the Medico-Legal Committee have been limited to that of an advisory board and no meeting of the Committee as a whole has been held during the past year.

Some of the cases in which litigation was pending at the time malpractice defense was discontinued by action of the House of Delegates have been settled during the past year.

The Medico-Legal Committee had no problems to submit to the Public Relations Committee for their program of *Work and Problems of the Medical Profession During Wartime* and that committee was so advised.

Correspondence during the year has consisted of a few inquiries in regard to medico-legal subjects which were sent directly to the Chairman of the Committee or were forwarded to him from the Executive Office of the Society. The Chairman of the Committee participated in a radio broadcast in which questions and answers were related to medico-legal subjects as they affect the layman; this program was broadcast over Station WJR in April, 1943.

Respectfully submitted,
S. W. DONALDSON, M.D., *Chairman*
RALPH COOK, M.D.
PAUL A. KLEBBA, M.D.
E. S. PARMENTER, M.D.,
WM. J. STAPLETON, M.D.
E. A. WITWER, M.D.

ANNUAL REPORT OF SYPHILIS CONTROL COMMITTEE, 1942-43

Four meetings of the Syphilis Control Committee were held during the year 1942-43. All meetings have been held on Sundays in Lansing.

The preparation of a prophylactic kit, considered to be an improvement over the usual commercial product, was one of our main activities for the year. In its preparation we received the advice and coöperation of the Retail Druggists Association through Mr. L. A. Wikel. This kit will bear the endorsement of the Michigan State Medical Society through this committee and will soon be on sale through retail druggists.

It was recommended to the Legislative Committee that the premarital law be amended to permit special certification at the discretion of the State Health Commissioner in cases where the woman concerned was demonstrated to be pregnant and venereal disease is present in either party. It was also recommended that a time limit of ninety days be placed on marriage licenses. Neither of these recommendations received favorable action by the State Legislature. Our Committee has recommended their reconsideration before the next session of this body.

The present designation of "Syphilis Control" is not descriptive of the scope of our Committee. It is recommended that the House of Delegates approve of "Venereal Disease Control" as a more appropriate name for this Committee.

Other activities included the approval along with the Industrial Health Committee of a program of venereal disease control in industry and coöperation with the Director of Postgraduate Medical Education for including venereal disease in the postgraduate program.

A joint meeting with the Michigan Bar Association and Mr. John Goldsmith, Chairman of the Committee on Courts and Wartime Social Protection of the American Bar Association, was held in May. A committee was appointed with representatives from the Michigan

Bar Association, Department of Health and our Committee. Its purpose is to codify Michigan laws in relation to venereal disease, make recommendations for strengthening same and secure more active coöperation with our law enforcement agencies and the Michigan Liquor Control Commission.

Respectfully submitted,
LOREN W. SHAFFER, M.D., *Chairman*
R. S. BREakey, M.D.
KENT ALCORN, M.D.
RUTH HERRICK, M.D.
H. L. KEIM, M.D.
F. J. O'DONNELL, M.D.
R. S. RYAN, M.D.
WM. R. VIS, M.D.

ANNUAL REPORT OF COMMITTEE ON INDUSTRIAL HEALTH, 1942-43

The Committee on Industrial Health held two meetings during the year, the first on November 7 and the second on March 18.

A training program for physicians expecting to serve as replacements in plant medical departments was developed in coöperation with the Bureau of Industrial Hygiene, Michigan Department of Health, *JOURNAL MSMS*, Nov., 1942, page 1002.) This "in service" training program was merely devised as an emergency measure as it is realized that only a few basic principles could be covered in the three weeks' period that was established for this purpose. This three-week period was divided into one week of didactic work, one week of field work and assignment for one week to a large industrial medical department.

Although many inquiries have been received concerning this training program, only one physician availed himself of the opportunity. Those available for training are undoubtedly too busy at the present time to consider making a change.

Some work has been done on the development of brochure for small plants, but more pressing work has prevented its completion.

A venereal disease control program in industry has been approved by the Committee on Industrial Health and Syphilis Control Committee and has been adopted by the Executive Committee of the Council.

The Committee published an article in *THE JOURNAL MSMS* concerning the recent revisions of the Michigan Workmen's Compensation Act, particularly those changes of interest to the medical profession.

The Committee, in Coöperation with the Postgraduate Medical Education Department of the University of Michigan, sponsored a one-day meeting on industrial medicine and surgery. This meeting, held in Detroit on April 8, was a complete success, having an attendance of 418, including registrants from seventeen states, Ontario and Saskatchewan. The luncheon and dinner were sellouts and a number of persons had to be turned away from each. Several have suggested that this meeting be made an annual affair and it is hoped that this can be done.

Respectfully submitted,

KENNETH E. MARKUSON, M.D., *Chairman*
H. H. GAY, M.D., *Vice Chairman*
R. U. ADAMS, M.D.
C. W. BRAINERD, M.D.
A. L. BROOKS, M.D.
HENRY COOK, M.D.
W. A. DAWSON, M.D.
W. B. HARM, M.D.
C. P. MCCORD, M.D.
C. D. SELBY, M.D.

COMMITTEE REPORTS

ANNUAL REPORT OF THE CHILD WELFARE COMMITTEE, 1942-43

The Committee had one official meeting, May 2, 1943, at which time, with the Maternal Health Committee of the MSMS, the members discussed the problem of pediatric, obstetrical, and hospital aid to the wives and infants of enlisted men in grades 4, 5, 6, and 7. This program was presented by Lillian R. Smith, M.D., director of the Bureau of Maternal Health and Child Welfare of the Michigan State Department of Health and was based upon legislation passed by the United States Congress and administered by the Children's Bureau of the Department of Labor. This legislation was a rider to a deficiency appropriation measure and was not basic legislation; the terms and conditions were not provided by law but were left as a matter of administrative determination to the discretion of the Secretary of Labor and the Chief of the Children's Bureau.

Without going into detail concerning the extensive discussion which took place, the combined committee thought that the program as presented by Dr. Smith offered too many objectionable features for the committees to approve it. Therefore, it was recommended that a transcript of the proceedings of the meeting be prepared and sent to every county medical society in the State for their consideration with the request that they pass upon it immediately and send the result of their deliberations to the Secretary. The Committee also went on record as deploring the lack of representation of the medical profession in Washington which would permit any such conditions to arise.

2. Dr. F. B. Miner's subcommittee, in coöperation with officials of the Department of Health, has prepared a new Brochure on Immunization and Diagnostic Procedures for Physicians. This is a very extensive review of recommended immunization and diagnostic procedures.

3. A. L. Richardson, M.D., has made repeated contacts with the American Legion Child Welfare Committee and is carrying our counsel to them.

The Committee derives no small degree of satisfaction in seeing some of its projects of two years ago come to fruition, namely, (1) county health unit in Wayne County with the attendant improvement in health and sanitation around the Bomber Plant; (2) a day nursery program which is becoming widespread throughout the State, particularly in the industrial areas; (3) a tremendous increase in the public awareness of the juvenile delinquency problem.

Respectfully submitted,
FRANK VAN SCHOICK, M.D., *Chairman*
R. M. KEMPTON, M.D., *Vice Chairman*
MOSES COOPERSTOCK, M.D.
CAMPBELL HARVEY, M.D.
EDGAR MARTMER, M.D.
CHAS. F. MCKHANN, M.D.
A. L. RICHARDSON, M.D.
L. J. SCHERMERHORN, M.D.
L. PAUL SONDA, M.D.

ANNUAL REPORT OF MENTAL HYGIENE COMMITTEE, 1942-43

During the year, two official meetings were held and in addition there were a number of unofficial discussions concerning important psychiatric problems by various members of the Committee. The issues raised and methods of solution recommended were as follows:

1. The problem of the individual rejected by the Army Induction Station and returned home. To many this is a severe psychic trauma, which may be sufficient to cause a mental disorder severe enough to require treatment. Prevention of a part of the trauma would occur in the individual were he never sent to the Induction Station in the first place. In this connection a statement was formulated and published in THE

JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY. A Radio Discussion of these problems on January 6, 1943, over WJR and a Round Table Discussion on May 9, 1943, over WJR occurred, at which time public attention was called to these problems.

2. The care of men discharged from the Army for psychiatric difficulties was discussed.

3. A resolution was presented to the Executive Committee of the Council suggesting that the Mental Hygiene Committee submit the names of physicians which might be recommended to the Governor for appointment to the State Hospital Commission and to the Bureau of Paroles and Pardons. This was accepted and names were submitted to the Executive Committee.

4. The Mental Hygiene Committee recommended the use of more psychiatric material on the program of the annual meeting of the Michigan State Medical Society.

5. The question of a resolution concerning premarital instruction to be given by physicians was discussed at considerable length, the final recommendations being that as much material on the subject as could be obtained from various parts of the country should be secured and that from this material should be worked out a program which might be utilized in Michigan. The importance of editorial comment in the State Medical JOURNAL concerning this matter, as well as the publication of an article in the State Medical JOURNAL, and perhaps the presentation of a paper on the subject at the annual meeting of the Society in September, was considered.

6. The importance of close coöperation between the specialty of Psychiatry and other branches of medicine was discussed at considerable length and in view of the work being done by R. G. Brain, M.D., of Flint in the development of a liaison between psychiatry and surgery, it was planned to have Dr. Brain write a short article which could be submitted to the Editor of THE JOURNAL of the State Medical Society for possible publication at a later date.

7. During the past, problems have arisen as result of inadequately completed physicians' certificates which are used in commitment procedures. In view of these difficulties, R. A. Morter, M.D., a member of the Mental Hygiene Committee, was appointed to write an article which could be published in the coming issue of THE JOURNAL of the State Medical Society having to do with the factor of importance in making out such certificates.

Respectfully submitted,
R. W. WAGGONER, M.D., *Chairman*
R. G. BRAIN, M.D.
ROBERT DIXON, M.D.
H. A. LUCE, M.D.
R. A. MORTER, M.D.
H. A. REYE, M.D.
O. R. YODER, M.D.

ANNUAL REPORT OF THE RADIO COMMITTEE, 1942-43

The Radio Program of the Michigan State Medical Society for 1942-1943 was made possible by the co-operation of the University of Michigan Broadcasting Service under Professor Waldo Abbott and the University Extension Division under Dr. Charles Fisher. That this program met with some measure of success is entirely the result of their enthusiasm and interest. Professor Abbott supervised the broadcasting and Dr. Fisher made possible the distribution of printed matter as requested by the listening audience. Two outlets were used, WJR with an almost nationwide coverage and WKAR of Lansing for the Michigan Network. Members of the State Society responded promptly when asked for material and a great deal of effort was used by each individual in preparing himself for the thirteen minutes on the air. Particular credit should be given

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H. H. Riecker, M.D., for the twelve related talks which he prepared and gave over WKAR. The response from the listening audience as measured in terms of requests for printed programs, leads us to feel that much good was accomplished. Appended to this report is the complete program for each station.

From this year's experience, certain conclusions are valid: First, the University of Michigan will always have an excellent radio outlet; second, the University of Michigan is anxious to present a dignified and sound medical program over the air and welcomes the sponsorship of the Michigan State Medical Society; third, without the collaboration of the University, a similar program would be very expensive; fourth, continuity of personnel and material is gained by close association of the broadcasting service with the State Society.

With the above conclusions in mind, it would seem wise to abolish the radio committee of the State Society and transfer its activities to the Department of Postgraduate Medicine of the Medical School of the University of Michigan, with the Committee on Postgraduate Medical Education of the State Society as advisory. In addition the Joint Committee on Health Education might also act in a similar capacity. By this plan the greatest measure of economy would be achieved, a dignified program presented, and a thorough editing could be assured.

* * *

MEDICAL TALKS—WJR, WEDNESDAYS, 10:30 P.M.

- Nov. 11—Dr. Carl A. Moyer, Assistant Professor of Surgery. Topic: Physiological Problems Pertaining to the War.
- Nov. 18—Dr. Maurice Seevers, Professor of Pharmacology and Chairman of that Department. Topic: The Sulfa Drugs.
- Nov. 25—Dr. George Ramsey, Resident Lecturer in Epidemiology. Topic: Epidemics in Time of War.
- Dec. 2—Miss Rhoda Reddig, Professor of Nursing and Director of School of Nursing. Topic: Nursing During the War.
- Dec. 9—Dr. Howard H. Cummings, Director of Postgraduate Medicine. Topic: The Effect of the War Upon Medical Service in Michigan.
- Dec. 16—Dr. Ralph Pino, Editor, *Detroit Medical News*. Topic: What Michigan Is Doing Through Health Insurance for the Community.
- Jan. 6—Dr. Raymond W. Waggoner, Professor of Psychiatry and Chairman of that Department. Topic: Psychiatric Problems of the War.
- Jan. 13—Dr. Frank N. Wilson, Professor of Internal Medicine. Topic: Medical Research in South America.
- Jan. 20—Dr. Harold Falls, Assistant Professor, Ophthalmology. Topic: The Care of the Eyes of Children with Special Reference to Amblyopia.
- Feb. 10—Dr. Henry Ransom, Associate Professor of Surgery. Topic: Until the Doctor Comes.
- Feb. 17—Dr. Charles F. McKhann, Professor of Pediatrics and Communicable Diseases, and Chairman of that Department. Topic: War Babies.
- Feb. 24—Dr. John Barnwell, Associate Professor of Internal Medicine. Topic: Tuberculosis and the War.
- Mar. 3—Captain Donald Leonard, Michigan State Police. Topic: Emergency Medical Service in Michigan.
- Mar. 10—Dr. Loren Shaffer, Director, Social Hygiene Division, City of Detroit. Topic: Venereal Disease Control in Michigan Defense Areas.
- Mar. 17—Dr. Frank Van Schoick, Chairman, Child Welfare Committee, Michigan State Medical Society, Jackson, Michigan. Topic: Child Welfare and the War.
- Mar. 24—Dr. Herman Riecker, Associate Professor of Internal Medicine in the Department of Postgraduate Medicine. Topic: The Health of the Industrial Worker.
- Mar. 31—Dr. Maurice H. Seevers, Professor of Pharmacology and Chairman of the Department. Topic: Drugged Sleep.
- April 7—Maj. Dan Bohmer, U. S. Medical Corps, University R.O.T.C. Topic: The Army Doctor's Job.
- April 14—Dr. S. W. Donaldson. Topic: YOU called the Doctor.
- April 21—Dr. Carl Badgley, Professor of Surgery. Topic: When You Break a Bone.
- April 28—Miss Adelia M. Beeuwkes, Instructor in Public Health Nutrition. Topic: Rationed Eating and Health.
- May 5—Dr. A. C. Curtis, Department of Dermatology, University Medical School. Topic: My Skin Itches.

MEDICAL TALKS—WKAR, 3:45 P.M.

- Material Presented by Herman H. Riecker, M.D., Professor of Postgraduate Medicine, University of Michigan Medical School, Ann Arbor.
- Feb. 17—Arthritis.
- Feb. 24—The Care of the Heart in Middle Life.
- Mar. 3—Indigestion. Causes and Management.
- Mar. 10—Fatigue.
- Mar. 17—Foods for Stamina.
- Mar. 24—The Allergic Diseases.

- Mar. 31—How Infections Are Spread.
- April 7—Tuberculosis.
- April 14—Immunization vs. Disease.
- April 21—The Control of the Body Weight
- April 28—The Chronic Cough.
- May 5—The Care of the Elderly.

Respectfully submitted,
 HUGH M. BEEBE, M.D., *Chairman*
 R. A. BURKE, M.D.
 WM. HAMILTON, M.D.
 R. J. MASON, M.D.
 J. H. McMILLIN, M.D.
 G. M. WALDIE, M.D.
 FRANK WEISER, M.D.

ANNUAL REPORT OF IODIZED SALT COMMITTEE, 1942-43

During the past year the members of this Committee have continued their studies of the various projects before the Committee which were previously reported to the MSMS House of Delegates. They represent a long-time program, requiring considerable consideration and contact work with other organizations and associations interested in the status of iodized salt.

The Committee wishes to recommend a continuation of the Iodized Salt Committee until its work shall have been completed.

Respectfully submitted,
 F. B. MINER, M.D., *Chairman*
 T. B. COOLEY, M.D.
 L. W. GERSTNER, M.D.
 D. J. LEVY, M.D.
 DORMAN E. LICHTY, M.D.
 R. D. McCCLURE, M.D.
 R. J. MOEHLIG, M.D.

ANNUAL REPORT OF ETHICS COMMITTEE, 1942-43

The Ethics Committee has had rather a quiet year. There is very little to report in the way of alleged transgressions of the Code of Medical Ethics.

We can attribute this to the war in two different ways. In the first place the men are so busy with the ethical practice of medicine that they have no leisure time to think up any tricks of sabotage against the ethical code in those few scattered cases where there might be an inclination to do this.

In the second place what promised to be one of the toughest cases in many years to handle has been postponed for the duration of the war because the alleged transgressor received a commission in the Armed Forces.

We are therefore very happy to report that the few cases we had were apparently handled by correspondence with excellent results because they seemed to be little matters of local misunderstanding.

Respectfully submitted,
 H. W. PORTER, M.D., *Chairman*
 E. B. ANDERSEN, M.D.
 GUY D. CULVER, M.D.
 J. C. GROSJEAN, M.D.
 L. C. HARVIE, M.D.
 GEO. B. HOOPS, M.D.
 ESLI T. MORDEN, M.D.

ANNUAL REPORT OF MEDICAL PREPAREDNESS COMMITTEE, 1942-43

The Procurement and Assignment Service for Physicians for the Armed Forces and Civilian Needs continued under the same Chairman and Committee as last year. Eight meetings were held. Many problems were settled for both the Armed Forces and the Local Communities.

In October, 1942, the services of the Recruiting Board were no longer needed; Michigan had nearly filled her

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quota. The officers of the Recruiting Board were released by the Surgeon General and were assigned to their former positions in the Armed Forces. The patriotic response of the doctors of medicine in Michigan in 1942 helped to meet the national quota of 42,500 physicians. As a result, Procurement and Assignment demonstrated that they could fulfill their promise to the Surgeons General of the Army and Navy.

Survey of the Medical Needs of Michigan

Reports were received from various communities that they lacked adequate medical care due to increased population in industrial centers. Four surveys were made to ascertain the needs of the communities, and each survey was made by a separate organization to evaluate the needs of the communities from four different angles. One survey was made by the Army Intelligence, one by the Michigan Department of Health through each county or district health officer, and one by the Secretary of each County Medical Society. The fourth survey was made by the Procurement and Assignment Committee of each County Medical Society.

The report of the Army Intelligence was never disclosed. The district health officers reported that there were no critical medical shortages but more doctors would be needed if there should be an epidemic. The County Secretaries gave their report in detail, indicating that forty doctors were needed for replacements at that time. Today, there are five more communities that are in need of medical care, but none of these are critical.

Surveys were made by the United States Public Health Service; by Colonel Meriwether, district officer from Chicago; and by the Procurement and Assignment Chairman of Michigan. The Soo was the first community to be surveyed jointly. At a meeting of the public and the medical profession, it was determined by a cross-examination of the citizens present that there were no cases lacking adequate medical care. However, due to the increase in population and to activities at Fort Brady, two doctors are to be allocated to the Soo.

We asked for the release of two commissioned doctors from the Armed Forces so they could return to their former relocation where they were urgently needed, but we were unsuccessful. Only in extreme cases will the armed forces release any officers.

In other areas, the medical profession said that they could care for the communities without assistance.

Relocated Doctors

To date, we have relocated 21 doctors in communities upstate; the majority in the critical area in the western part of Wayne County, including Willow-Run Townsite. Eleven residents who will complete their terms on June 30, 1943, are available for relocation.

We have sent doctors to some communities lacking medical care, but due to lack of cooperation with the local medical profession and the citizens in providing office and living quarters, the doctors returned to their former locations.

Several doctors, formerly licensed to practice in this state, returned to Michigan from other states.

Hospitals

The Procurement and Assignment Committee assisted the doctors of the western part of Wayne County in making application to the Board of Supervisors of Wayne County for the use of one of the buildings at the William J. Seymour Hospital at Eloise, Michigan. The people were very much in need of this hospital. We can now state that the hospital administration has turned this building over to the citizens of the western part of Wayne County for hospital service.

Dr. Warner of the U. S. Public Health Service made a detailed report of the Housing Project, dormitories, and expendable trailer camps in industrial areas of Detroit and other cities, giving the population of each, and the medical care needed. In Townsite, and

other large housing projects, facilities will be available for living quarters and offices for physicians.

Medical School Needs Due to the Change in the School Curriculum from Four to Three Years

A meeting was held with the University of Michigan and Wayne University to ascertain their needs. Both agreed to reduce their teaching staffs to the minimum number to provide good teaching facilities. We wish to thank Dean Furstenberg and Dean Norris for their excellent cooperation.

Quotas

At the November meeting of the Sixth Service Command, the quotas for the Armed Forces were discussed. Michigan had met her 1942 quota, and was 50 per cent over. This was accredited to 1943, leaving us approximately 28 for 1943. We are far above our quota now, and consequently, no more doctors are being taken from Michigan, except residents and interns. They are not accredited to any quota.

A State Committee was formed to consult the Procurement and Assignment of Dentists, Veterinarians and Physicians composed of representatives of the Michigan State Medical Society, Civilian Defense, Chamber of Commerce and all those interested in adequate medical care.

Clarence D. Moll, M.D., was made State Vice Chairman for Procurement and Assignment Service of Physicians in Wayne County.

The State Committee wishes to thank the Michigan State Medical Society Council and its Executive Committee; the Procurement and Assignment Committees of each County Society; the State Selective Service; and others who have aided in meeting the demands of the Armed Forces and the needs of the civilian population, for their cooperation.

Respectfully submitted,

P. R. URMSTON, M.D., *Chairman*
F. G. BUESSER, M.D.
MILTON DARLING, M.D.
L. FERNALD FOSTER, M.D.
HAROLD A. FURLONG, Lt. Col., M.C.
C. D. MOLL, M.D.
H. H. RIECKER, M.D.
C. I. OWEN, Major, M.C.
J. G. SLEVIN, Lt. Col., M.C.

ANNUAL REPORT OF PROFESSIONAL LIAISON COMMITTEE, 1942-43

The Michigan State Medical Society presented no communication to this Committee. The Michigan State Dental Society presented no communication to this Committee. The Michigan State Pharmaceutical Association advised the Committee that certain drugs may be sold or dispensed without the authority of a doctor of medicine, and that the unrestricted sale of these drugs is dangerous to the public health. They cited the steps taken to control these drugs in the form of the so-called barbiturate law (Act No. 204 of the Public Acts of 1943) and the Federal Dangerous Drug Act. The effectiveness of the latter Act has not been tested in States not having a similar state law, and the Barbiturate Act is limited in scope. In their opinion more drugs should be included in this state Act, and the advisability of making Act 204 conform with the Federal Dangerous Drugs Act should be studied.

Executive Secretary Wm. J. Burns explained the measures taken by the Michigan State Medical Society to secure the passage of Act No. 204, and that it was passed to correct certain criminal abuses as much as to control the sale of the drugs included in it. Since the bill had been approved by all persons interested in it by the time this Committee had met, it was deemed

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unwise to attempt to amend it at this session of the legislature.

It was, therefore, recommended that this Committee study Act No. 204 with the intent of having it conform to the Federal Dangerous Drug Act and that this Committee make a study of, and report upon all state and federal legislation governing the prescribing, dispensing and administration of drugs, chemicals and anesthetics.

Respectfully submitted,

ALPHEUS F. JENNINGS, M.D., *Chairman*
W. H. BOUGHNER, M.D.
E. L. CHAPMAN, M.D.

ANNUAL REPORT OF CANCER CONTROL COMMITTEE, 1942-43

1. The Committee has devoted its entire attention to the completion of the Cancer Manual. The material has been submitted, edited and is in the hands of the printer—the books will be distributed sometime during the latter part of the summer.

2. The Committee wishes to thank all the various members of the State Society who contributed chapters dealing with Cancer in their particular specialties.

3. The Chairman wishes personally to acknowledge his sincere appreciation for the time, thought and help of all the members of the Cancer Committee, particularly C. V. Weller, M.D., who coedited the book with Frank L. Rector, M.D., our Field Representative, and who so generously gave us space for the work in his office at the University. Also, the advice and encouragement of F. A. Collier, M.D., who always had an excellent suggestion as to solving some of the difficulties in this work. C. K. Hasley, M.D., in carrying out the necessary work in the Detroit area, contributed greatly to the completion of the work.

4. Frank L. Rector, M.D., our Field Consultant, has very ably covered the ground this year having been granted every possible help and cooperation by N. Allan Hoyer, M.D., Commissioner of the Michigan Department of Health.

5. We are planning to extend our work in the fall to create some material for nurses and institutions for training of teachers that will be more accurate and enlightening than the present material available to them.

WILLIAM A. HYLAND, M.D., *Chairman*
J. H. COBANE, M.D.
F. A. COLLIER, M.D.
C. E. DEMAY, M.D.
C. K. HASLEY, M.D.
A. B. MCGRAW, M.D.
C. V. WELLER, M.D.

ANNUAL REPORT OF COMMITTEE ON PRELICENSURE MEDICAL EDUCATION, 1942-43

This Committee has not been called together during this past year. It seems evident that until the war is over there can be nothing accomplished along the lines that this committee had in mind a couple of years ago.

Respectfully submitted,

BURTON R. CORBUS, M.D., *Chairman*
A. C. FURSTENBERG, M.D.
C. R. KEYPORT, M.D.
J. EARL MCINTYRE, M.D.
EDGAR H. NORRIS, M.D.

ANNUAL REPORT OF MSMS REPRESENTATIVES TO JOINT COMMITTEE ON HEALTH EDUCATION, 1942-43

The Joint Committee on Health Education operating on limited funds has, in the past year, limited its activities to the Speakers' Bureau. In that, we have had as

always the enthusiastic cooperation of Dr. Charles Fisher and the Extension Division of the University of Michigan.

There has been some discussion in the past year as to the advisability of discontinuing our activities and combining with the Adult Educational Group. However, the feeling of our Executive Committee and the Council of the State Society is that it would be advisable to continue on a lessened activity basis until such time as the Committee could be certain that its purpose could be fulfilled by other agencies.

A satisfactory number of lay audiences has been addressed on health matters during the year. Our educational films have been advantageously used.

Even though its funds are limited, the Joint Committee felt justified in assigning two hundred and fifty dollars for the use of the Radio Committee in order that they might put on a special program which the Radio Committee and the Joint Committee agreed would be effective. We believe that the responses indicate that this expenditure was justified.

There has been no meeting of the Joint Committee's Executive Committee, although the chairman has kept in close touch by correspondence with the Committee, and there has been no occasion for the State Society's representatives to get together.

Respectfully submitted,

BURTON R. CORBUS, M.D., *Chairman*
ROBERT H. FRASER, M.D.
HENRY A. LUCE, M.D.
F. J. O'DONNELL, M.D.
W. R. VAUGHAN, M.D.

ANNUAL REPORT OF TUBERCULOSIS CONTROL COMMITTEE, 1942-43

Your Committee met with the Association of Michigan Sanatorium Superintendents and with the Michigan Sanatorium Commission. These joint bodies proposed certain bills to be presented to the Legislature for the better control of tuberculosis in this state. Members of your Committee were helpful in presenting the necessary data to the Legislature. They enjoyed the excellent support of the MSMS Executive Office in Lansing. All bills proposed were successfully passed—at least the purposes of these proposals were carried out by legislative action.

Additional subsidy for approved county sanatoriums also was approved by the 1943 Legislature and money was appropriated for this purpose. In addition, money was made available to help care for tuberculosis in those counties which were unable to finance it. Workers in state hospitals and sanatoriums, contracting tuberculosis in their work, were made eligible for state care. Your Committee lent a helpful hand when its members were called upon. It feels that the past year has marked an advance in the care of tuberculosis in the State of Michigan.

Through the Preventive Medicine Committee, there was referred to the Michigan Association of Roentgenologists the question of whether roentgenologists should report cases of tuberculosis diagnosed in their laboratories. A suggestion that the roentgenologist merely enclose with the x-ray report, a case report which the referring physician would send in at his own discretion and under his own name, met with objection.

Respectfully submitted,

JOHN B. BARNWELL, M.D., *Chairman*
CECIL CORLEY, M.D.
JOSEPH L. EGGLE, M.D.
L. E. HOLLY, M.D.
W. L. HOWARD, M.D.
W. B. HOWES, M.D.
H. G. HUNTINGTON, M.D.
E. J. O'BRIEN, M.D.
GEORGE A. SHERMAN, M.D.
JOHN TOWEY, M.D.



YOU AND YOUR BUSINESS

CONSUMER EXPENDITURES FOR HEALING SERVICES*
(In Millions of Dollars)

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
Physicians and Surgeons, M.D.	1,035.0	1,003.0	897.0	729.0	688.0	766.0	838.0	955.0	1,019.0	1,007.0	1,048.0	1,112.0	1,208.0
Dentists	489.7	469.3	399.7	305.3	278.9	298.1	304.3	333.2	350.6	350.4	370.3	397.8	455.1
Osteopaths	40.7	37.7	34.5	27.4	25.7	28.1	29.8	33.0	35.9	39.4	42.0	44.3	46.8
Chiropractors	48.7	45.6	40.1	29.7	25.6	26.4	28.2	31.8	33.4	33.1	33.6	36.3	39.9
Chiropodists and podiatrists	19.5	18.9	17.2	14.3	13.0	13.0	13.5	15.1	15.3	14.1	15.1	16.6	19.1
Private-duty trained nurses	142.0	130.0	96.0	58.0	48.0	46.0	50.0	55.0	59.0	58.0	59.0	62.0	68.0
Practical nurses and midwives	63.0	62.1	53.7	39.3	35.1	36.7	36.9	39.0	39.7	38.1	38.7	39.0	43.7
Miscellaneous healing groups	29.0	27.6	23.8	17.5	15.6	16.0	16.3	18.5	18.5	16.6	17.6	19.0	21.6
Payments by patient to hospitals and sanitariums:													
(a) Nongovernment hospitals and sanitariums	298.1	302.0	287.8	272.1	248.3	249.6	271.4	284.6	303.2	307.3	330.9	362.6	391.2
(b) Government hospitals and sanitariums	25.2	27.0	27.9	30.0	30.6	31.5	33.3	34.5	36.3	36.7	38.2	39.7	45.2
Net payment to group hospitalization and group health associations	—	—	—	—	—	.1	.4	1.3	3.5	6.9	11.5	18.0	23.6
Student fees for medical care	1.8	1.8	1.9	1.8	1.8	1.8	1.9	2.0	2.1	2.3	2.4	2.5	2.5
Accident and health insurance premiums	177.9	185.8	179.9	153.0	137.9	150.6	163.8	175.6	193.7	202.9	222.6	247.0	271.0
Mutual accident and sick benefit association premiums	51.0	47.0	42.3	35.2	31.1	31.3	32.7	37.1	43.0	49.5	59.3	62.0	65.0

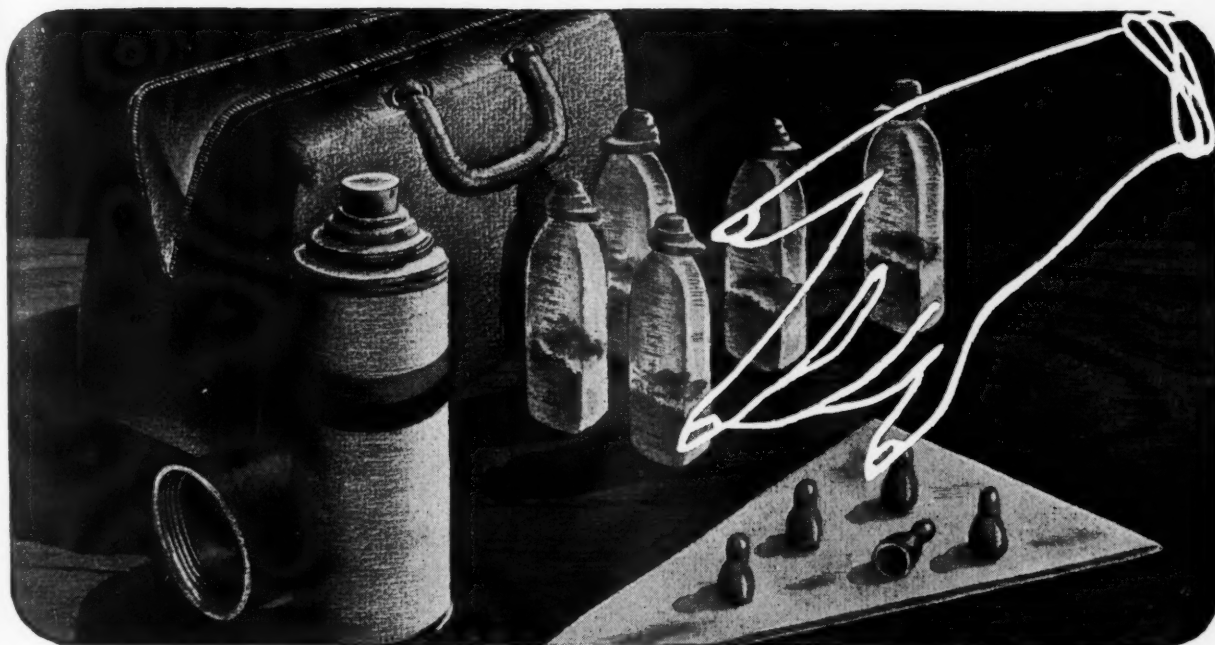
THE 1946 PICTURE

A hypothetical projection of expenditures by commodity groups based on past relationships to the gross national product has also been made by the economists of the Department of Commerce. This is not a forecast but merely an indication of the magnitude of the increase all along the line if a high level of total output is achieved, as anticipated. It is based on the assumption (a) that the war and the immediate postwar reconversion period will be over before 1946; (b) that 96.5 per cent of those seeking employment will have productive jobs; and (c) that prices will be the same as in 1942.

The total expenditure for "Medical Care and Death Expenses" for 1946 has been hypothetically projected at the staggering sum of \$4,169,000,000. This is to be compared to the total of \$2,766,000,000 spent in 1940 and \$2,783,000,000 expended in 1929. Of the four billion plus dollars, a rough estimate indicates the \$1,676,000,000 will be expended for the services of Doctors of Medicine alone.

Is it any wonder that certain bureaucrats would like to control the practice of medicine and the healing arts!

*The above table is from "Markets After the War," published by the U. S. Department of Commerce, March, 1943.



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The mother has only to measure out and place in dry, sterile feeding bottles, the prescribed amount of Similac powder for each individual feeding. The bottles containing the measured Similac powder are then capped, and can be conveniently carried, along with a thermos bottle of boiled water cooled to about blood heat. At feeding time it is necessary only to pour into one of the bottles containing the measured Similac powder, the prescribed amount of water, then shake until the Similac is dissolved, place a nipple on the bottle, and feed.



A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, olive oil, cocoanut oil, corn oil and cod liver oil concentrate.

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Similar to breast milk

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PUBLIC MEETING

THE MICHIGAN STATE MEDICAL SOCIETY ANNOUNCES A PUBLIC ADDRESS BY
SISTER ELIZABETH KENNY OF AUSTRALIA

FRIDAY, SEPTEMBER 24, 1943, 8:30 P.M.—BALLROOM, STATLER HOTEL, DETROIT

Members of the Michigan State Medical Society are urged to invite their patients and the public generally to attend this meeting to hear Sister Kenny outline her pioneer work in the treatment of infantile paralysis. Admission free.

McGRAW MEMORIAL
IS ESTABLISHED

Establishment of the Theodore A. McGraw Memorial Scholarship, to be given to the outstanding junior student in the Wayne University College of Medicine, is announced by Dr. Edgar H. Norris, dean of the College. The award, amounting to \$100 annually, is made possible by a gift from an anonymous donor. It is intended as a memorial to the late Dr. McGraw, former president of the Detroit College of Medicine and Surgery.

INFANTILE PARALYSIS

A project to make The National Foundation for Infantile Paralysis the only complete central, authentic source of information on Infantile Paralysis in the world was announced by Basil O'Connor, president of the Foundation.

A complete bibliography of all scientific literature that ever has been published pertaining to infantile paralysis is being compiled by the Foundation, and is expected to be ready for publication in book form in the early part of 1944. The first volume will contain a record of all scientific material on poliomyelitis published in the world up to the end of 1943. Subsequently, the data will be kept up to date by publication of annual supplements. Brief abstracts of the more important articles will be included in the bibliography to be published by the Foundation.

This will be the first time there has been compiled a complete international bibliography on infantile paralysis. It will make available to the medical world data that will acquaint research workers with all investigative work that already has been done.

MSMS ROSTER—SUPPLEMENTAL LIST

(An "M" following a name indicates active military service)

Berrien County

Brown, G. W.....Buchanan
Fredrickson, H. C.....Buchanan
Ingleright, Leon R.....Niles
Lawton, C. V.....Benton Harbor

Houghton County

Buckland, R. S.....Baraga
Burke, J. J.....Hubbell
Willson, P. H.....Chassell
Stewart, G. C.....Painesdale

Ingham County

Cook, Martin J.....Lansing
Rector, Frank L.....Lansing

Ionia-Montcalm County

Lintner, R. C.....Berrien Springs

Macomb County

Borland, Alexander.....Pontiac
Curlett, J. E.....Roseville
Gehring, Norman F.....Pontiac
Gerls, Frank B.....Pontiac
Hackett, Daniel J.....Pontiac
Hasner, Robert B.....Royal Oak
Kirkup, Norman N.....Hazel Park
Merrill, Lionel N.....Royal Oak
Murtha, A. V.....Pontiac
Neafie, Charles A.....Pontiac
Prevette, Isaac C.....Pontiac
Rupp, Jacob R.....Lawrence, Kan.
Sheffield, L. C.....Pontiac
Sibley, H. A.....Pontiac
Wagner, Ruth E.....Royal Oak
Yoh, Harry B.....Clarkston
Zonnica, Marian E.....Pontiac

Washtenaw County

Harris, B. M.....M
Williamson, F. B.....Ypsilanti
Wilson, Frank N.....Ann Arbor
Palmer, A. A.....M
Newburgh, Louis H.....Ann Arbor

Wayne County

Auble, M. E.....Detroit
Barnes, Donald J.....Detroit
Bennett, Wm. Edw.....Detroit
Buell, Martin F.....Dearborn
Belanger, Wm. Geo.....M
Blaine, Max.....Detroit
Cleage, Louis.....Detroit
Cooley, Thomas B.....Detroit
Cooksey, Warren B.....Detroit
DeWitt, Norman L.....Detroit
Drolshagen, E. A.....Algonac
Galvin, Paul P.....Detroit
Hamil, Brenton M.....Detroit
Harris, I. D.....Detroit
James, Richard G.....Detroit
Jordan, R. Gerald.....Detroit
Kennedy, W. Y.....Detroit
Merriman, K. S.....Detroit
Moore, Doris S.....Detroit
Moore, Milridge B.....Detroit
Opperman, Rudolph.....Detroit
Rieden, James A.....Detroit
Seller, Chas. W.....Detroit
Sakorrphos, Stelios N.....Detroit
Witus, M.....Detroit
Wood, Wilford C.....Detroit

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Note: Information, containers, tubes, et cetera, on request.

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ROMEO

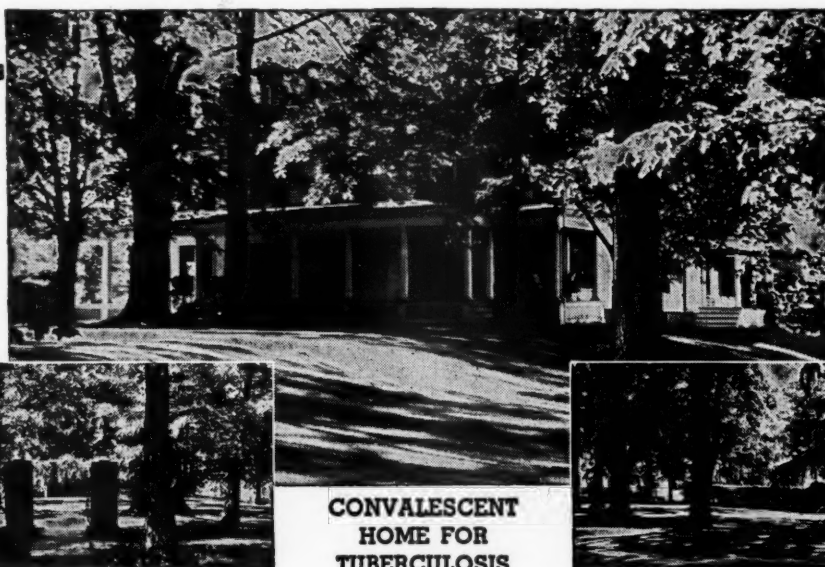
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Lynn A. Ferguson, M. D.

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★ COUNTY AND PERSONAL ACTIVITIES ★

100 PER CENT CLUB FOR 1943

Barry County—H. S. Wedel, M.D., Secretary
Berrien County—R. C. Conybeare, M.D., Secy.
Branch County—James Bailey, M.D., Secretary
Cass County—K. C. Pierce, M.D., Secretary
Chippewa-Mackinac—David Littlejohn, M.D., Secy.

Clinton County—T. Y. Ho, M.D., Secretary
Dickinson-Iron—E. B. Anderson, M.D., Secy.
Eaton County—L. G. Sevener, M.D., Secretary
Gogebic County—F. L. S. Reynolds, M.D., Secy.
Huron County—J. Bates Henderson, M.D., Secretary

Jackson County—H. W. Porter, M.D., Secy.
Lapeer County—H. M. Best, M.D., Secretary
Livingston County—Ray Duffy, M.D., Secretary
Luce County—Sidney Franklin, M.D., Secretary
Manistee County—C. L. Grant, M.D., Secretary
Mecosta-Osceola-Lake—John A. White, M.D., Secretary

Menominee County—Wm. S. Jones, M.D., Secy.
Midland County—H. H. Gay, M.D., Secretary
Muskegon County—Helen Barnard, M.D., Secy.
Newaygo County—W. H. Barnum, M.D., Secy.
Oceana County—W. Heard, M.D., Secretary
Ontonagon County—W. F. Strong, M.D., Secy.
Saginaw County—R. S. Ryan, M.D., Secretary
Sanilac County—E. W. Blanchard, M.D., Secy.
Shiawassee County—I. W. Greene, M.D., Secy.
St. Clair County—A. L. Callery, M.D., Secy.
St. Joseph County—R. J. Fortner, M.D., Secy.
Wexford-Missaukee—B. A. Holm, M.D., Secy.

The above medical societies have certified 1943 dues for every member of their respective societies.

Congratulations, members of the 100 Per Cent Club!

Kathryn M. Bryan, M.D., a practitioner in Manistee for many years, left Michigan May 1 to become associated with the staff of the Logansport State Hospital, Logansport, Indiana.

* * *

A *Wayne County Board of Health* has been named consisting of George Boik, chairman, Charles E. Brake, Joseph Henry McCann, L. K. Babcock, M.D., Detroit, and John W. Nagle, M.D., Wyandotte. The board has chosen as its secretary Stanley Nowicki, Director of the County Research Bureau.

Due to personnel shortages, only a skeleton staff will be hired at this time, consisting of a director, an assistant director, a sanitary engineer, four sanitarians, a supervising nurse, four general staff nurses, a statistical clerk-stenographer and a laboratory technician.

Physicians appearing as expert-witnesses in malpractice cases should do so without fee, unless expense is incurred or special study or investigation is required. No charge should be made for appearing either on behalf of the defendant or the plaintiff. If both these things were done, the insurance costs of the defendant would be drastically reduced, and subsidized, biased, and highly-colored testimony would be eliminated.

—LOUIS J. REGAN, M.D., Hollywood, California.

* * *

Udo J. Wile, M.D., and *Edna B. Kearney, M.S.*, Ann Arbor, are authors of "Morphology of *Treponema Pallidum* in the Electron Microscope: Demonstration of Flagella," which appeared in JAMA, May 15.

C. J. France, M.D., *Morton Barnett, M.D.*, and *F. F. Yonkman, M.D.*, of Detroit, are authors of "Recovery from Eight Grams of Barbiturates in Attempted Suicide," in the same issue.

* * *

Calling all doctors who have taken postgraduate work other than in our Michigan Postgraduate program: Please send details for evaluation and credit to L. Fernald Foster, M.D., Secretary, Michigan State Medical Society, 2020 Olds Tower, Lansing. If possible, send by return mail in order that credit may be included on your report for the fiscal year which ends September, 1943.

* * *

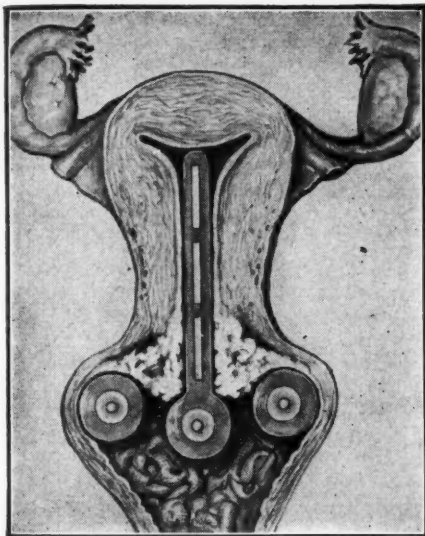
D. J. McColl, M.D., of Port Huron was honored with a testimonial dinner by the St. Clair County Medical Society on May 25. Tribute was paid to Dr. McColl on the completion of fifty years of service to his profession. The Society presented Dr. McColl with a desk set and a portfolio autographed by members of the organization and guests at the testimonial meeting. Neil J. McColl, M.D., president of the Society and a brother of the guest of honor, presided at the meeting. Among out-of-town guests was Clarke McColl, M.D., of Detroit, son of D. J. McColl, M.D.

ADDITIONAL BENEFITS OF MEMBERSHIP

(Continued from Page 476, June MSMS Journal)

14. More definite assurance of reimbursement for services in accident cases through the State Society's agreement with insurance companies, called "Michigan Hospitals and Medical Payments Plan."
15. Information and action on fraudulent schemes, inferior products, and pseudo-medical practitioners through close cooperation with the State Board of Registration in Medicine, other departments of your State, and the AMA Councils.
16. A position of social responsibility in the community—the trust and opportunity of the medical profession to assume leadership in all medical matters.
17. Continual development and maintenance of confidence in the medical profession—in YOU—by a constant alert program of public relations by your state society.
18. Results from unified action to solve problem of complete distribution of medical care to all groups in the state.

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CONSISTENTLY high percentages of 5-year cures in Carcinoma of the Cervix are reported by institutions employing the French technique illustrated here. Ametal rubber applicators encase the heavy primary screens and provide ideal secondary filtration to protect the vaginal mucosa. Radium or Radon applicators for the treatment of Carcinoma of the Cervix and provided with Ametal filtration are available exclusively through us. Inquire and order by mail, or preferably by telegraph or telephone reversing charges. Deliveries are made to your office or hospital for use at the hour you may specify.

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An easy to use, therapeutic agent for the treatment of eczema, seborrheic and eczematoid dermatitis, and industrial dermatoses, **TARBONIS CREAM** is saving many a doctor's vital time . . . is rapidly proving itself of real value in treating skin irritations slow to respond to ordinary treatment.

Stainless, greaseless, and clinically non-irritating and non-allergic, it may safely be prescribed for continued home use by the patient. Although it is a tar derivative, and maintains the therapeutic properties inherent in the base tars, it is entirely free from the "tarry" odor associated with ordinary tar preparations.



Carried in a bland vanishing cream that is rubbed into the skin without leaving a greasy film and so requires no dressing, Tarbonis Cream wins rapid patient acceptance.

Many medical directors of vital Michigan defense plants have found Tarbonis Cream most effective in combatting industrial dermatitis.

Marketed exclusively through ethical channels, it is a ready answer to the problems of stubborn, time-consuming cases of skin irritation.

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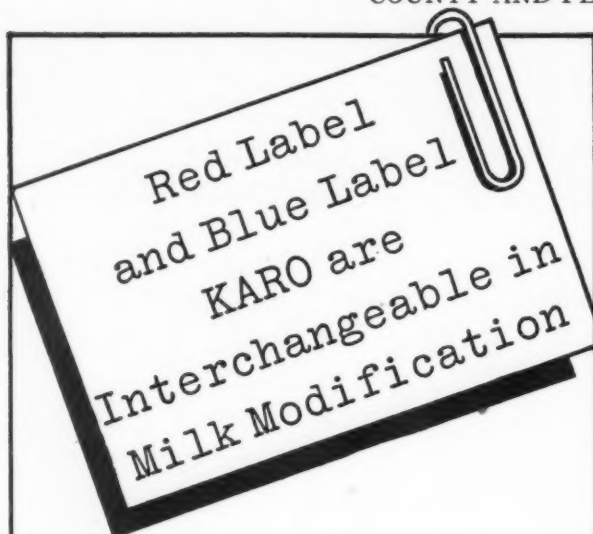
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Dr.

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City State



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Either is equally effective in milk modification. Your patients may safely use either type, if the other is temporarily unavailable at their grocers'.



How much KARO for Infant Formulas?

The amount of KARO prescribed is 6 to 8% of the total quantity of milk used in the formula—one ounce of KARO in the newborn's formula is gradually increased to two ounces at six months.

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The Saginaw County Medical Society, in special session May 18, adopted a resolution which recommended that the dues of the Michigan State Medical Society be increased, up to a maximum of \$50.00 per year, sufficient to provide additional facilities and services requisite to the well-being of the medical profession of Michigan which cannot be supplied on the present inadequate MSMS dues.

* * *

Your Friends

Frederick Stearns & Company, Detroit, Michigan
Wall Chemicals Corporation, Chicago, Illinois
Westinghouse X-Ray Company, Inc., Detroit, Michigan
White Laboratories, Inc., Newark, New Jersey
Winthrop Chemical Company, Inc., New York, New York
John Wyeth & Brother, Philadelphia, Pennsylvania
Zimmer Manufacturing Company, Warsaw, Indiana

The above firms were among the exhibitors at the 1942 MSMS annual meeting in Grand Rapids and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember your friends when you have need of equipment, medical supplies, appliances or service.

* * *

The Michigan State Medical Society and the State Bar of Michigan have united in a campaign against venereal disease.

Representatives of both these professional organizations met May 23 and appointed a joint committee to devise ways and means to control venereal diseases, by education, by legislation, and by increasing necessary hospital facilities. Members of the joint committee are F. J. Weber, M.D., Lansing, Chairman; H. L. Keim and L. W. Shaffer, M.D., of Detroit; and R. S. Breakey, M.D., and LeMoyne Snyder, M.D., of Lansing; Attorneys John L. Potter, Detroit; James J. Dunn, Battle Creek; Raymond W. Fox, Kalamazoo.

* * *

Special Membership—County society secretaries are requested to submit to the Michigan State Medical Society the names of any physicians for whom special membership (Retired or Emeritus) in the State Society will be sought at the 1943 MSMS House of Delegates in September, 1943, in Detroit, in accordance with Chapter I, Section 8 of the MSMS By-Laws which states:

"Only active members are eligible for Retired or Emeritus Membership. Transfer shall be by election in the House of Delegates. Requests for transfer shall be accompanied by certification by the Secretary of the State Society, as to years of practice and years of membership in good standing. The county society of such members shall make request for certification, in writing, to the Secretary of the State Society thirty days in advance of an annual session."

* * *

P. R. Urmston, M.D., Michigan Consultant of the War Manpower Commission, advises that on December 31, 1942, Michigan was 50 per cent over her quota of Doctors of Medicine in the armed forces, and further that the State met her 1943 quota on January 31, 1943! "We are not taking any more Doctors of Medicine from Michigan, at present, for the armed forces. All physicians are frozen in their present locations and

JOUR. M.S.M.S.

Say you saw it in the Journal of the Michigan State Medical Society

COUNTY AND PERSONAL ACTIVITIES

must serve their communities, unless released by Procurement and Assignment Service."

Relocations—Doctor Urmston advises that approximately thirty physicians are needed for relocation, and is asking for volunteers for various communities. Physicians who are interested may write P. R. Urmston, M.D., Davidson Building, Bay City.

The Michigan State Medical Society's annual meeting will be held September 22-23-24 at the Statler Hotel, Detroit.

You will be eager to get away from the cares of your practice to enjoy a few days of postgraduate medical work, for which credit will be given towards your Fellowship or Associate Fellowship in Postgraduate Medical Education. Write to the Committee on Hotels, 2020 Olds Tower, Lansing, for your reservation.

The National Foundation for Infantile Paralysis and the University of Michigan have joined in a long-range program for the training of doctors, public health workers and laboratory technicians to study infantile paralysis and other virus diseases.

This program, which has been developing for three years, was expanded to its full scope on June 1 when the University opened its new three-story building for its School of Public Health.

The new structure will house a unit devoted entirely to work in virus diseases, particularly infantile paralysis. The virologists who will be trained under the program will be prepared to attack the whole realm of virus diseases, including not only infantile paralysis but also influenza, atypical pneumonias, St. Louis and equine encephalitis, measles, chicken-pox, smallpox and mumps. A three-year grant of \$120,000 has been made by the National Foundation.

* * *

What does the Social Security Act provide?

(a) **Old age and survivors' insurance.** Pays benefits averaging about \$250 a year to those eligible individuals who attain age 65 and to widows and children (survivors) of eligible wage earners who died before reaching age 65. Employer and employee pay a tax (by payroll deduction) of 1 per cent each.

(b) **Unemployment benefits.** Eligible wage earners who become unemployed receive cash benefits in proportion to their wages, with a maximum limit, when unemployed. There are certain requirements for eligibility, waiting period, and a limit as to the number of weeks for which these benefits are payable. Unemployment benefits are administered by state commissions under supervision of the Social Security Board.

At present, employers pay a tax of 3 per cent of the first \$3,000 of the annual wage of the employees; employee pays nothing. Credit of 2.7 per cent allowed by Federal government for tax paid into state unemployment compensation funds. State taxes may vary but most are 2.7 per cent. United States Employment

JULY, 1943

Say you saw it in the Journal of the Michigan State Medical Society

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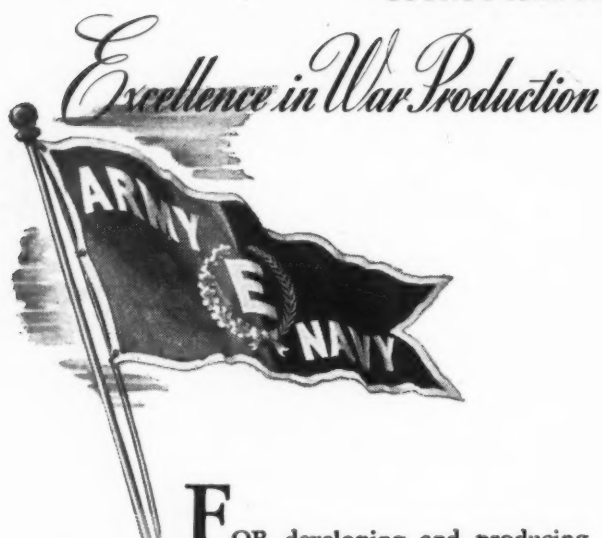
Due to British war restrictions, gold foil has been eliminated and other slight changes have been made on the outside of the familiar Johnnie Walker bottle—but inside good old Johnnie Walker whisky remains unchanged.



JOHNNIE WALKER

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Until recently our total output of Sterile Shaker Packages of Crystalline Sulfanilamide was needed for military purposes. As a result of increased production, however, we can now supply these packages for civilian medical use. The package is available only by or on the prescription of a physician.

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offices are set up under the Social Security Act to service employment.

(c) *Public assistance.* Grants to states are made under the Act for old age, dependent children, maternal and child welfare, the blind, and public health work.

—Insurance Economics Society, Chicago

* * *

UPPER PENINSULA MEDICAL SOCIETY MEETING

The 46th annual meeting of the Upper Peninsula Medical Society will be held at Iron Mountain, July 14. The scientific program and a short recreational and social period in the late afternoon will take place at the Pine Grove Country Club.

The program is as follows:

- 9:30 "The Abortion Problem"—Alexander M. Campbell, M.D., Grand Rapids, Maternal Health Consultant, Michigan State Medical Society—Michigan Department of Health
- 10:15 "Anemias"—E. J. Teeter, M.D., Indianapolis, Indiana, Director, Eli Lilly Research Laboratories
- 11:00 "Occupational Dermatoses"—H. R. Foerster, M.D., Milwaukee
- 11:45 Recess
- 12:15 Luncheon
- 1:00 Remarks—L. Fernald Foster, M.D., Bay City, Secretary, Mich. State Med. Society
- 1:30 Recess
- 2:15 "Endometriosis"—H. H. Cummings, M.D., Ann Arbor, President, Mich. State Med. Society
- 3:00 "Vaginal Hysterectomy" (illustrated)—John M. Waugh, M.D., Rochester, Minn. Dept. of Surgery, Mayo Clinic
- 3:45 "Methods of External Fixation"—Herman C. Schumm, M.D., Milwaukee, Wisconsin
- 4:30 "Diseases of the Prostate Gland"—Reed M. Nesbit, M.D., Ann Arbor, Professor of Genito-Urinary Surgery
- 5:15 Recess
- 6:30 Dinner
- 8:00 Panel Discussion—Discussants to be selected.
- 9:00 Adjournment.

The Dickinson-Iron County Medical Society is the host society. The committees in charge of the convention are:

Executive Committee.—W. H. Alexander, M.D., President, Upper Peninsula Medical Society; E. B. Andersen, M.D., secretary; R. E. Hayes, M.D.; D. R. Smith, M.D.; R. E. White, M.D.

Entertainment Committee.—W. H. Huron, M.D.; Geo. Boyce, M.D.; Wm. Fiedling, M.D.; D. A. Levine, M.D.; Clifford Menzies, M.D.; L. E. Irvine, M.D.

Publicity Committee.—E. R. Addison, M.D.; Wm. Kofmehl, M.D.; G. Fredrickson, M.D.

COUNTY AND PERSONAL ACTIVITIES

1943 TECHNICAL EXHIBIT

Exhibitors at the 1943 "Postgraduate Conference on War Medicine"—the 78th annual meeting of the Michigan State Medical Society, to be held at the Statler Hotel, Detroit, September 22-23-24, include:

Baker Laboratories.....Cleveland, Ohio
Bard-Parker Company, Inc.....Danbury, Conn.
The Borden Company.....New York, N. Y.
Burroughs Wellcome & Co.....New York, N. Y.
Cameron Heartometer Co.....Chicago
Cameron Surgical Company.....Chicago
S. H. Camp & Company.....Jackson, Michigan
Ciba Pharmaceutical Products.....Summit, New Jersey
Cottrell-Clarke, Inc.....Detroit
The Cream of Wheat Corporation.....Minneapolis, Minn.
Davis & Geck, Inc.....Brooklyn, N. Y.
Doho Chemical Corporation.....New York, N. Y.
Ernst Bischoff Company, Inc.....Ivoryton, Conn.
General Electric X-Ray Corporation.....Chicago
Gerber Products Company.....Fremont, Michigan
Hack Shoe Company.....Detroit
Hanovia Chemical & Mfg. Company.....Newark, N. J.
J. F. Hartz Company.....Detroit
H. J. Heinz Company.....Pittsburgh, Pa.
Holland-Rantos, Inc.....New York, N. Y.
G. A. Ingram & Company.....Detroit
A. Kuhlman & Company.....Detroit
Lea & Febiger.....Philadelphia, Pa.
Lederle Laboratories.....Chicago
Libby, McNeill & Libby.....Chicago
Eli Lilly & Company.....Indianapolis, Ind.
J. B. Lippincott Company.....Philadelphia, Pa.
M. & R. Dietetic Laboratories.....Columbus, Ohio
Mead Johnson & Company.....Evansville, Ind.
Medical Arts Surgical Supply Co.....Grand Rapids, Mich.
Medical Protective Company.....Fort Wayne, Ind.
Mellin's Food Company.....Boston, Mass.
Merck & Company.....Rahway, N. J.
The Wm. S. Merrell Company.....Cincinnati, Ohio
Michigan Medical Service.....Detroit
C. V. Mosby Company.....St. Louis, Mo.
Parke, Davis & Company.....Detroit
Pet Milk Sales Corporation.....St. Louis, Mo.
Petrogalar Laboratories, Inc.....Chicago
Philip Morris & Co., Ltd.....New York, N. Y.
Picker X-Ray Corporation.....New York, N. Y.
Procter & Gamble.....Ivorydale, Ohio
Professional Management.....Battle Creek, Mich.
Randolph Surgical Supply Company.....Detroit
W. B. Saunders Company.....Philadelphia, Pa.
Scientific Sugars Company.....Columbus, Ind.
Sharp & Dohme.....Philadelphia, Pa.
S.M.A. Corporation.....Chicago
Smith, Kline & French Laboratories.....Philadelphia, Pa.
E. R. Squibb & Sons.....New York, N. Y.
Frederick Stearns & Company.....Detroit
Wall Chemicals Corporation.....Detroit
White Laboratories.....Newark, N. J.
Winthrop Chemical Company.....New York, N. Y.
John Wyeth & Brother, Inc.....Philadelphia, Pa.
Zimmer Manufacturing Company.....Warsaw, Ind.

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HEALTH DEPARTMENT CHANGES

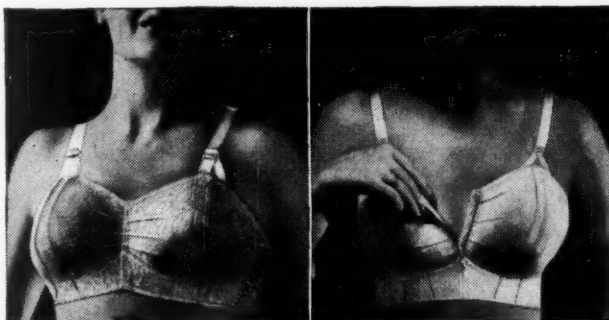
Effective June 1, Baraga County Health Department united with the Houghton-Keweenaw Health Department, with A. D. Aldrich, M.D., of Houghton as full-time Health Director.

Ontonagon County united with Iron County to form the Iron-Ontonagon District Health Department, with L. C. Bate, M.D., as Director.

C. C. Corkill, M.D., has resigned as Director of the Menominee County Health Department, July 1, to go into private practice. Alexander Witkow, M.D., Director of the Dickinson County Health Department, will serve part time as Director of the Menominee Department.

JULY, 1943

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Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

THE INNER EAR, Including Otoneurology, Otosurgery, and Problems in Modern Warfare. By Joseph Fischer, M.D., Staff member Beth Israel Hospital, Boston, formerly Associate of Adam Politzer, and Senior Otolaryngologist with Gustav Alexander, Policlinic of Vienna, and Louis E. Wolfson, M.D., Instructor in Ear, Nose and Throat, Tufts Medical School. New York: Grune and Stratton. 1943. Price \$5.75.

A tremendous amount of material about the physiology, neurology, and surgery of the inner ear is presented in this 421-page book. Dr. Fischer has a great store of knowledge from his teaching experience, and the faculty of presenting it. The physiological symptoms and phenomena, with methods of diagnosing the intricate inner ear manifestations, are given. Inflammatory diseases, labyrinthine complications and a section on war injuries present the latest knowledge on difficult subjects. This field of research is well covered. For the deep student of Otology this book is invaluable.

A MANUAL OF CARDIOLOGY. By Thomas J. Dry, M.A., M.B., Ch.B., M.S. In Medicine. Assistant Professor of Medicine, University of Minnesota (Mayo Foundation): Consultant in Section on Cardiology, Mayo Clinic. 310 pages with 80 illustrations. Philadelphia and London: W. B. Saunders Company, 1943. Price \$3.00.

This manual is a short introduction to the study of a great bulk of material in problems of the heart that are too complex for ready availability. It is complete with illustrations and charts, and guides in diagnosis and treatment. The electrocardiogram is lucidly explained. For the busy practitioner this is a valuable book.

MANUAL OF INDUSTRIAL HYGIENE AND MEDICAL SERVICE IN WAR INDUSTRIES. Issued under the auspices of the Committee on Industrial Medicine of the Division of Medical Sciences of the National Research Council. Prepared by the Division of Industrial Hygiene, National Institute of Health, United States Public Health Service. William M. Gafafer, D.Sc., editor. 466 pages. Philadelphia and London: W. B. Saunders Company, 1943. Price \$3.00.

This is a one-volume encyclopedia of up-to-date information on industrial medicine which covers the many new problems produced by the War and by the entry in large numbers of women into factory work. It is designed to supplement the information of men already familiar with industrial medicine, and as a guide to the men who have taken up this line of practice in the present emergency, for the first time.

Contributors to this volume include physicians, engineers, public health service directors and consultants. Plans for new medical units, dispensaries or plant hospitals are outlined in full, and suggestions made for the enlargement of medical services in older industries where plant personnel has enlarged greatly. This includes building plans, records, nursing services, the duties of the plant physician and a complete analysis of the industrial physician's problems.

Dr. W. C. Dreessen outlines the problem of occupa-

JOUR. M.S.M.S.

tional disease as it is found in different sectors of the country, and in each state, and Dr. Louis Schwartz has an excellent chapter on occupational dermatoses, which lists in detail all of the common irritants used in plants which might produce skin reactions. This is most complete.

Medical control of respiratory diseases, venereal disease control, industrial psychiatry, health education, industrial fatigue and nutrition in industry are all given consideration. Plant sanitation, heating, ventilating and air conditioning are well discussed. A new problem, the manpower problem in war industries, is completely presented by Drs. Flinn, Brinton and Gafafer, taking up maximum use of manpower, women in industry, and absenteeism. This book should be in the hands of every industrial physician, and should be a part of the plant library, for it is useful not only to the physician, but to everyone concerned with industrial hygiene.

THE KENNY CONCEPT OF INFANTILE PARALYSIS AND ITS TREATMENT. By John F. Pohl, M.D., Clinical Assistant Professor of Orthopedic Surgery, University of Minnesota; in collaboration with Sister Elizabeth Kenny, Honorary Director, The Elizabeth Kenny Clinic of Australia; Honorary Director the Elizabeth Kenny Institute, Minneapolis; Guest Instructor University of Minnesota Medical School; with a foreword by Frank R. Ober, M.D., President, The American Orthopedic Association. Saint Paul: Bruce Publishing Co. 1943. Price \$5.00.

Sister Kenny has taught us an entirely new concept of the treatment of infantile paralysis. She has made certain interpretations of the disease that are at variance with what was accepted, and as a result has made a great contribution to treatment. Dr. Pohl has studied Sister Kenny's work, and is presenting it in very complete and clear style, well illustrated, and thoroughly analyzed. After all, it is the result that counts, and this method offers far more than has been offered before. This book presents pictures and text of the highest type. All persons interested in the treatment of infantile paralysis will find this book indispensable.

THE ANATOMY OF THE NERVOUS SYSTEM. By Stephen W. Ranson, M.D. Seventh Edition. Octavo of 520 pages, illustrated. Philadelphia: W. B. Saunders, Company, 1943. Cloth, \$6.50.

"The Anatomy of the Nervous System" by Ranson has been very well prepared to give the reader and student of medicine a very well developed and carefully prepared study of the general nervous system. The book is thoroughly comprehensive, and all details are duly accentuated.

The book is very thorough in the general study and discussion of the nervous system. The form of presentation and the sequence of chapters is carefully handled, and most beneficial to the reader, thus making the continuity of the book excellent. The diagrams and drawings show a great deal of skill and detail in their presentation. Likewise, the drawings are generously distributed at the appropriate places, throughout the book, to establish in the reader's mind the details of the vast nervous system of the human body.

The style of the book is a very easy one for the general reader. The descriptions of the various parts of the nervous system, the responses and the far-reach-

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FRACTURES & TRAUMATIC SURGERY—Two Weeks' Intensive Course starting October 18.

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OBSTETRICS—Two Weeks' Intensive Course starting October 4.

OPHTHALMOLOGY—Two Weeks' Intensive Course starting September 27. Course in Refraction Methods, October 11.

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ing magnitude of the nervous system is particularly well presented to the reader. The author's choice of diction is very pleasing, too.

The chapter devoted to "The Sympathetic Nervous System" is especially well presented for the general practitioner. The drawings and diagrams are suitable for the student studying the anatomy of the nervous system. The presentation of the Sympathetic Nerves and Plexuses is well developed. Likewise, the chapter on "The Cerebellum" is splendid, for it gives the reader a well-rounded summary of the cerebellum. The treatment of the "Histology of the Cerebellar Cortex" is an outstanding section of the book.

Doctors should find this book a very thorough presentation of the Nervous System, and a valuable book for reference and research in their study of the nervous system. The book should be a valuable one for the practitioner to possess for his study, or for his general source of information and reference for the many studies of the nervous system. The book has definite value to the doctor of medicine, whatever his field or specialty may be, for the anatomy of the nervous system is definitely a basic foundation for all advanced stages of medicine or surgery.

THE PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. DeLee, A.M., M.D., Formerly Professor of Obstetrics and Gynecology, Emeritus, University of Chicago; Consultant in Obstetrics, Chicago Lying-in Hospital and Dispensary; Consultant in Obstetrics, Chicago Maternity Center; and J. P. Greenhill, B.S., M.D., Attending Obstetrician and Gynecologist, Michael Reese Hospital; Obstetrician and Gynecologist, Associate Staff, Chicago Lying-in Hospital; Attending Gynecologist, Cook County Hospital; Professor of Gynecology, Cook County Graduate School of Medicine. Eighth Edition, Entirely Reset. 1101 pages with 1074 illustrations on 841 figures, 209 of them in colors. Philadelphia and London: W. B. Saunders Company, 1943. Price \$10.00.

Seven editions have preceded this one and the need for another edition testifies to the universal acceptance of Dr. DeLee's teaching. Two years before his death he asked Dr. Greenhill to undertake this revision. He was consulted and approved much of the addition, corrections and deletions. New chapters have been added dealing with endocrinology as related to Obstetrics and Gynecology, Vitamin K, Vitamins, Roentgenography, the Sulfonamide Drugs, and the Waters Extraperitoneal Cesarean Section.

The chapters on Toxemias of Pregnancy were rewritten to conform to the classification proposed by the American Committee on Maternal Health. Many of the illustrations are new.

The book is compact for one of its scope. Well printed, with readable types and paper, DeLee's has been almost the obstetrician bible. This volume is no exception.

TRANSURETHRAL PROSTATECTOMY. By Reed M. Nesbit, M.D., F.A.C.S., Associate Professor of Surgery, University of Michigan Medical School, In Charge of the Section of Urology, Department of Surgery. With 94 drawings illustrating technique by William P. Didusch, and a chapter on the vascular supply of the Prostate Gland by Ruben H. Flocks, M.D. Springfield, Illinois: Charles C. Thomas, 1943. Price \$7.50.

Our own Reed Nesbit has produced an outstanding book outlining with clear detail the techniques, practices and procedures of the transurethral operation on the prostate. There is detailed description of the in-

struments and their use, management of the case, and an analysis of the experience of his clinic. The illustrations are clear, sufficiently large, and numerous. The book closes with a very complete bibliography. This book is by its completeness a standard reference, and will become an invaluable guide to the surgeon beginning the use of this technique.

HOPE DEFERRED. By Jeanette Selets. New York: The Macmillan Company, 1943. Price \$2.75.

Miss Seletz furnished a field day for the layman, who for once is given a look-see into the inner wheels and springs of the medical profession, to find out what makes it "tick." A group of medical students is conducted from the dissecting room, through grilling study, bull sessions, student escapades, and the smart white and starch of their internships, to final success and distinction for some.

The characters are cameo clear. There is the fine and upstanding Jane Brent, and this doctor of fiction does not have a shock of red hair, freckles and a fiery temper. Then there is Tommy the lovable playboy, Buckley the southern "colonel, suh," and Stokes the book worm, the magnificent Dean Larsen, and the gifted and fatherly Dr. Shultz, lovely Carol, and Mary the nurse.

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stir forgotten heartaches. The book has tragedy, two delightful love interests and brilliant dialogue. There are two distinct disappointments: The title has somehow a forbidding sound, and Jane and Carol did not "live happily ever after." Why? Compromise! Thou too art a jewel in marriage. But anyway, you will enjoy the book.

NUTRITION AND DIET in HEALTH AND DISEASE. By James S. McLester, M.D., Professor of Medicine, University of Alabama, Birmingham, Alabama. Fourth Edition, Thoroughly Revised. 849 pages. Philadelphia and London: W. B. Saunders Company, 1943. Price \$8.00.

Dr. McLester, in his introduction referring to progress in medicine, quotes "the man who sleeps over eight hours takes a chance." In this fourth edition the chapter on Vitamins is largely rewritten to cover new nomenclature, newly discovered vitamins, et cetera. The vitamins are individually discussed. Also minerals, water balance, roughage, cost of food, milk and its products, and so on.

Diet is discussed in health of infant, school-age child, and old age, food requirements in relation to reproduction, and in deficiency diseases due to vitamins or other causes. Diabetes, gout, obesity, food allergies, kidneys and urinary tract diseases, digestive problems all have their chapters.

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The appendix covers special methods of feeding, storing, processing and cooking foods and a profusion of tables.

This book would seem to be almost indispensable in many classes of medical practice, including all those whose responsibility is the feeding of the sick as well.

OBSTETRICAL PRACTICE. By Alfred C. Beck, M.D., Professor of Obstetrics and Gynecology, Long Island College of Medicine, etc., Third Edition with 1,064 illustrations, 93 pages. Baltimore: The Williams and Wilkins Company, 1942. Price \$7.00.

A full and comprehensible book that will impel the undergraduate to greater effort in mastering the subject of obstetrics, and will assist the active obstetrician to meet with confidence and solve the problems that arise, in a manner guaranteeing the best and safest results to the mother and to the baby.

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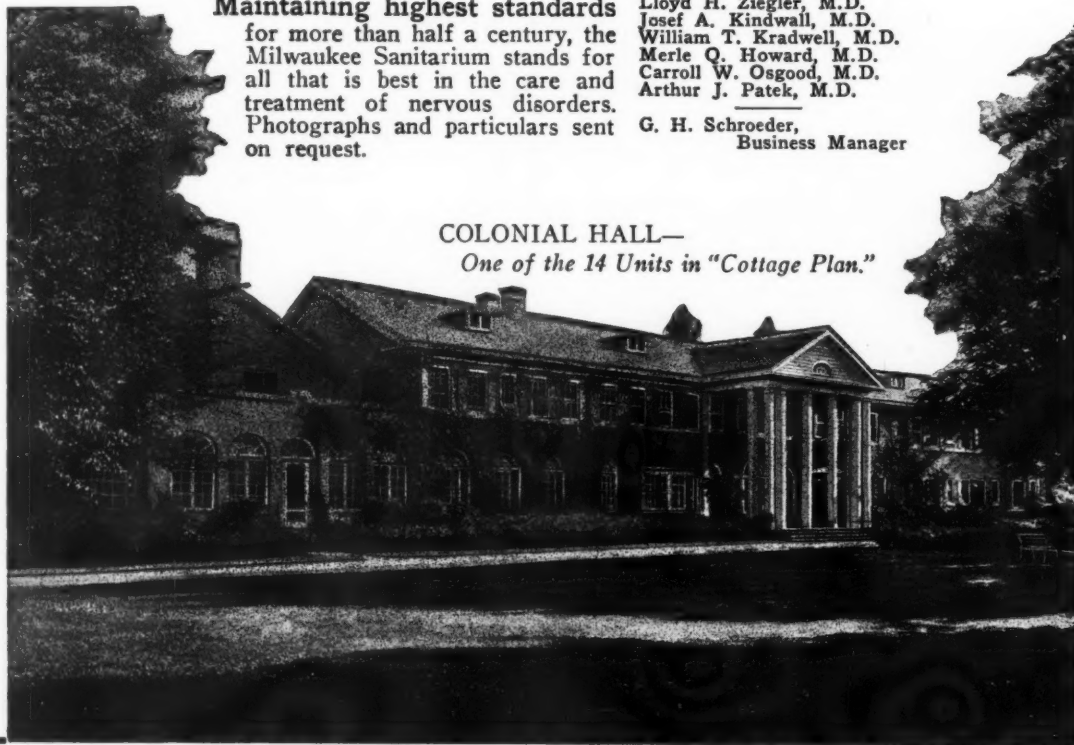
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